Education Indicators
2000 edition

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Introduction

This edition of the Education Indicators deals with all levels of education, from kindergarten to university. Some indicators cover the education system as a whole, whereas others focus on a specific level. This year, new information has been added and new topics introduced: total educational spending per capita, the average number of students per research professor in universities, the average salary and cost of research professors per student, and the use of new information and communications technologies in education.

The purpose of publishing indicators is to ensure accountability by providing specific information on the resources allocated to education, the various activities pursued by the education system and the results obtained. The indicators are presented under a series of headings classifying recent and historical data that help trace these developments over time. The 2000 edition contains 55 sections, that is, three less than the 1999 edition: 44 of these have been updated from last year, while the remaining 11 have been substantially revised or are altogether new.

The development of education indicators in Québec is part of a larger movement. The Council of Ministers of Education, Canada (CMEC) has undertaken projects to develop indicators for Canada's provinces; the Organisation for Economic Co-operation and Development (OECD) has done the same for its member countries, and the United Nations Educational, Scientific and Cultural Organization (UNESCO) has also published a series of indicators on education throughout the world. Québec has been an active participant in this worldwide movement, having published the first edition of the Education Indicators in 1986.

Examination of the indicators in this publication reveals a number of trends and developments that characterize Québec's education system. Some are explained briefly below. Additional information on these topics and others can be found further on in this booklet.

Financial Resources Allocated to Education

In 1998-1999, Québec's educational spending, including operating expenses, capital expenses and the administrative expenses of the Ministère de l'Éducation, was estimated at $15.1 billion, or 7.8% of the gross domestic product (GDP).

The share of the GDP allocated to education in the rest of Canada was estimated at 6.6% and in the United States, at 7.2%.

Total spending amounted to $2 058 per capita. In 1998-1999, the breakdown of total spending by level of education was as follows: elementary and secondary education (school boards and subsidized private schools), 55.2%; college education (CEGEPs and subsidized private colleges), 12.3%; and university education, 21.2%. In addition, other spending, mainly for education funded by Human Resource Development Canada or by Emploi Québec, accounted for 11.3% of the total.

In 1998-1999, in Québec, per-student spending was estimated at $5 573 for the school boards, $6 554 for CEGEPs, and $11 899 for universities, not including subsidized research. Funds allocated to university research in 1997-1998 totalled $605.2 million. The per-student cost of university teaching staff was $4 644 in 1997-1998.

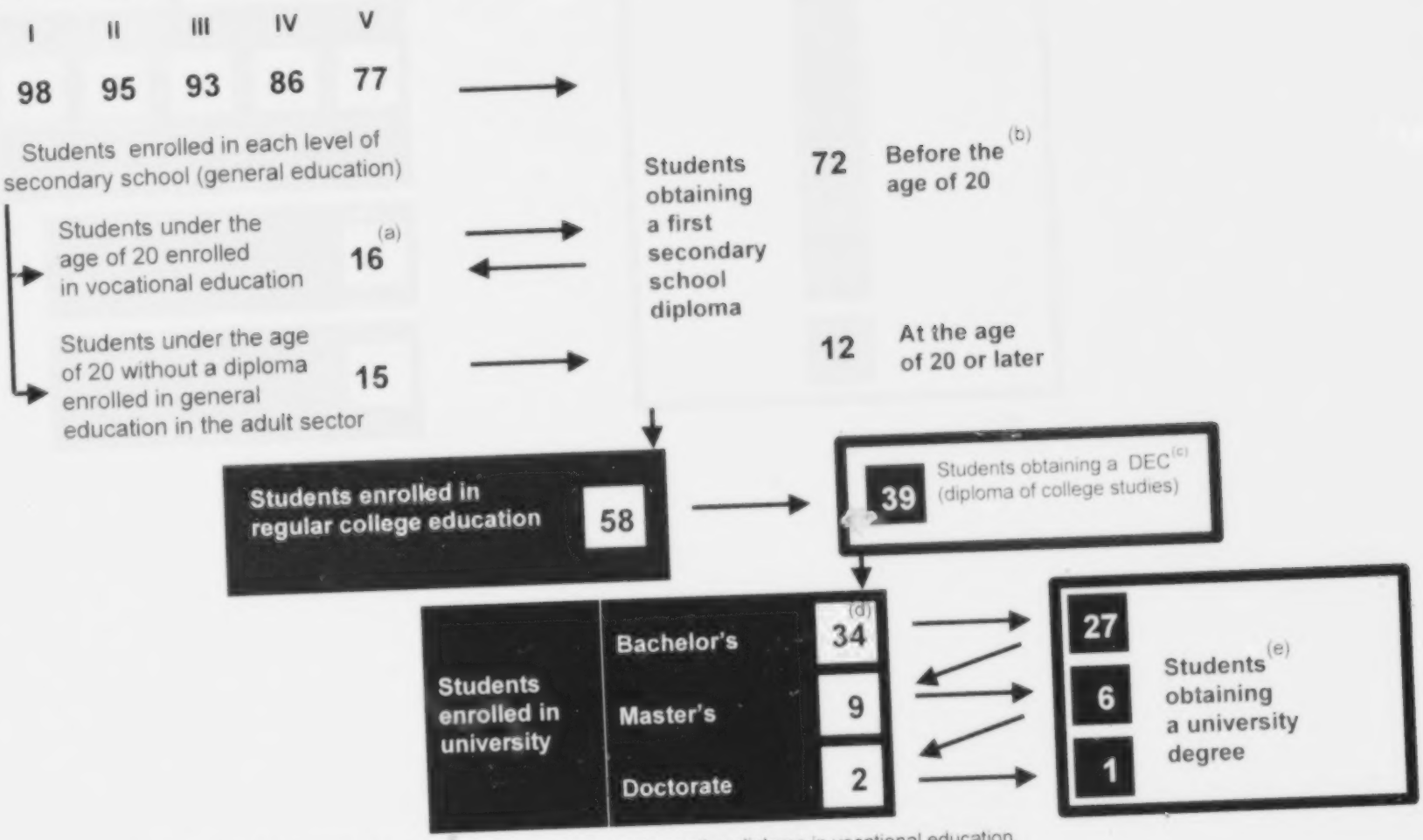
In 1998-1999, 149 750 persons benefited from Québec's Student Financial Assistance Program. A total of $484.6 million was granted in the form of loans and $190.0 million, in bursaries.

Student Retention from Elementary School to University

Student retention in Québec's education system for 1998-1999 is illustrated on the opposite page. The diagram represents the proportions of a cohort of young people who could expect to enroll and to obtain a diploma or degree in each level of education. The diagram shows that, in a generation of 100 persons, 98 could be expected to reach the secondary level and 84 to obtain a first secondary school diploma, 39 to obtain a Diplôme d'études collégiales (DEC–diploma of college studies), 27 to earn a bachelor's degree, 6 to be awarded a master's degree and 1 to obtain a doctorate. Of the 84 students to obtain a secondary school diploma, 23 would do so in vocational education. However, the educational playing field was far from level for the sexes in 1998-1999; many more male students than female students (23% compared with 9%) could be expected to leave their studies before earning a diploma. At the other extreme, 32% of women would obtain at least a bachelor's degree, compared with 22% of men.

Objectives for the educational success of a greater number of Quebeckers have been set for the year 2010: to have 85% of the students in a generation earn a secondary school diploma before the age of 20, 60%, a DEC and 30%, a bachelor's degree. Women have already attained the objective set for earning a bachelor's degree.

Student Retention of 100 Quebeckers in the Education System, Based on Findings for 1998-1999



(a) This figure includes 10 general education graduates likely to obtain another diploma in vocational education.
(b) All diplomas earned in the youth sector are included, regardless of the age of the graduates.
(c) The most recent data available dates from 1997-1998.
(d) Students who enroll in university are not limited to those who hold a DEC.
(e) The most recent data available dates from 1998.

Children who began elementary school in 1997-1998 can expect to be in school for 15.4 years (if it is assumed that the success rates and retention rates prevailing in the education system in 1997-1998 do not change). Secondary school graduates will have been in school for 11.2 years, at an estimated cost of $82 753 in 1998-1999; those obtaining a bachelor's degree will have studied for 17.1 years, at an estimated total cost of $164 053.

Staying in School and Obtaining a Diploma

The dropout issue is a major concern among educators. Numerous approaches have shed light on this phenomenon. Educational success, defined here as the obtaining of a diploma, is measured differently for each level and sector of education. In this regard, the proportion of 19-year-olds who left school without a secondary school diploma was 18% at the beginning of 1998-1999.

The proportion of students in other education sectors who obtained diplomas and the proportion who left school either temporarily or permanently were determined by observing the number of students who leave school each year. Thus, of the students in Secondary Cycle Two in the adult sector who quit their studies before the age of 20, 58% did so with a diploma, while 42% left school for at least two years. In secondary vocational education, of 100 students of all ages who were enrolled in programs leading to a Secondary School Vocational Diploma (SSVD, which became known as the Diploma of Vocational Studies or DVS in 1998) and who left secondary school, 66 did so with a diploma, while 34 dropped out of school. At the college level (regular education), 54% of students in technical programs leading to a DEC obtained a diploma, while 46% interrupted their studies for at least two full years. Of the college students enrolled in pre-university programs, 69% left with a DEC, while 31% left without one. At the university level, 65% of students leaving bachelor's programs did so with a degree, while 35% dropped their studies. Of the students enrolled in master's programs, 66% earned their degree, while 34% dropped their studies, and at the doctoral level, 53% of candidates earned a doctorate, while the remaining 47% did not complete their program.

Evaluation of Learning

In the subjects for which uniform examinations were administered for the certification of studies by the Ministère de l'Éducation in June 1998, students in Secondary IV and V obtained an average mark of 75.0% and had a pass rate of

87.8%. The male students' average was 74.1% and the female students', 75.8%. Students obtained an average final mark of 74.3% on the examination in Secondary V French, language of instruction; 93.8% obtained a passing mark.

On science examinations held in 1999 under the supervision of the Council of Ministers of Education, Canada, Francophone and Anglophone 13-year-olds in Québec obtained results similar to Canadian students as a whole; their 16-year-old counterparts obtained results similar to or slightly better than Canadian students as a whole.

What Becomes of Graduates?

When they finish school, graduates from secondary school, college and university have to make choices. Some decide to continue their education, while others set their sights on the labour market. In 1997-1998, at the end of their college studies, 81% of pre-university program graduates under the age of 25 went on to university the following year, compared with 22% of graduates from technical programs.

The unemployment rate in March 1999 was 15.1% for students who had graduated in 1997-1998 with a DVS, 6.8% for students who had graduated from a college technical program and 11.9% for graduates of pre-university programs. In January 1999, the unemployment rate for graduates with a bachelor's degree awarded in 1997 was 6.4% and for those with a master's degree, it was 7.4%.

Since 1990, the profile of the work force in Québec has changed significantly. In 1999, of the people with jobs, there were 545 000 more than in 1990 who had a DVS, a DEC or a university degree. During the same period, the number of employed people who had not gone beyond the SSD in general education dropped by 328 000.

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Readers seeking a more in-depth analysis or an up-to-date picture of the situation should consult the individual sections in the pages that follow. The Ministère de l'Éducation and the Conseil supérieur de l'éducation also produce and publish specialized studies on these topics. Finally, general information on the education system is available in the following publications:

- *Basic Statistics on Education*
- Annual report of the Ministère de l'Éducation
- *Annual Report on the State and Needs of Education,* published by the *Conseil supérieur de l'éducation*

The Ministère de l'Éducation also has a page at the Web site of the Gouvernement du Québec at <http://www.meq.gouv.qc.ca>.

Québec's Education System: An Overview

Québec's education system offers a wide range of educational programs and services from kindergarten to university.

Elementary and Secondary Education

Elementary school normally lasts six years; secondary school, five. Children are admitted to the first year of elementary school in the school year in which they will have turned 6 years of age by October 1. Kindergarten is not compulsory, but almost all 5-year-olds attend half time and, as of the fall of 1997, full time. School attendance is compulsory until the year in which students turn 16 years of age, which normally corresponds to Secondary IV.

Elementary education is offered in French, English or a Native language, and secondary education, in French or English. Students deemed eligible to study in English are chiefly those whose father or mother attended English elementary school in Canada. Public elementary and secondary education is provided by school boards. The school boards are managed by school commissioners, who are elected by residents in the territory under the school board's jurisdiction. The school boards hire the staff they need to provide educational services. In 1998-1999, the Québec government funded 77% of school board operating expenses, while local taxes accounted for 16% of school board revenues, and other sources provided the remaining 7%.

In July 1998, the number of school boards was reduced to 72, and they were organized along linguistic lines, except for three with special status. There are 60 French school boards and 9 English school boards, with enrollments ranging from 900 to 76 000, for a median size of approximately 10 500 students. The three special-status school boards serve primarily Native students in the Côte-Nord and Nord-du-Québec regions; they are the Cree School Board, the Kativik School Board and the Commission scolaire du Littoral.

Elementary and secondary education is also provided by private institutions, some of which are subsidized by the Ministère de l'Éducation. The private school system accounts for 4.6% of elementary students and 15.5% of secondary students in the youth sector. More than half of the operating expenses of subsidized private institutions is funded by the Québec government. Elementary and secondary education is also offered by some public institutions that are not part of

the school board system but fall under Québec or federal government jurisdiction; these institutions account for 0.3% of students.

Secondary school diplomas are awarded by the Minister of Education to students who fulfill the certification requirements set by the Minister. A Secondary School Diploma (SSD) is required for admission to college. A Diploma of Vocational Studies (DVS) (before 1998, known as the Secondary School Vocational Diploma–SSVD) generally leads to the labour market, but also allows admission to college. The harmonization of educational services offered in the youth sector and the adult sector is a feature of Québec's education system. Adult education leads to secondary school diplomas that are the same as or equivalent to those offered in the youth sector.

College Education

Students may enroll in college programs leading to a Diplôme d'études collégiales (DEC–diploma of college studies) or in short technical programs leading to an Attestation d'études collégiales (AEC–attestation of college studies). College education theoretically consists of a two-year program for students enrolled in pre-university education or a three-year program for those in technical education; technical programs aim primarily at entry into the labour market, but also allow graduates admission to certain disciplines in university.

Students may pursue their college studies in the language of instruction of their choice. Public college education is provided by CEGEPs (a French acronym that stands for general and vocational college). CEGEPs are administered by boards composed of representatives from different interest groups, including members of the public, parents, students, staff members and college administrators. In 1998-1999, the Québec government funded 85% of CEGEP operating expenses. Private educational institutions served 12% of college students, and 56% of their expenses were funded by the government. College education is also available at a few institutions associated with ministries other than the Ministère de l'Éducation and by the Macdonald Campus of McGill University.

A DEC is awarded to a student by the Minister of Education following the recommendation of the institution attended. For shorter programs, other types of certification are awarded: the Certificat d'études collégiales (CEC–certificate of college studies), the Diplôme de perfectionnement de l'enseignement collégial (DPEC–diploma of advanced college studies) and the AEC. These are issued directly by the college. CECs and DPECs are being phased out, as students stopped being admitted to programs leading to these types of certification in 1994.

University Education

Québec has English and French universities; students are free to attend the university of their choice. University education is divided into three levels of studies. The first leads to a bachelor's degree (generally after three years, compared with the four years required elsewhere in North America), the second to a master's degree and the third to a doctoral degree. Universities also award certificates, diplomas and other forms of attestation to certify the successful completion of short programs. In 1998-1999, 58% of university expenses were subsidized by the Québec government.

The Ministère de l'Éducation

The Ministère de l'Éducation fulfills different functions for the various levels of education. For elementary, secondary and college education, the Ministère develops programs and determines objectives and often content. In terms of labour relations, it negotiates and signs provincial agreements. In terms of financing, it establishes a standard framework and provides the largest share of resources. At the university level, it promotes the advancement of teaching and research by providing universities with the resources required for operation and development while respecting their autonomy and fostering collaboration among the various partners.

Reform of the Education System

In the fall of 1996, following the Estates General on Education, the Ministère de l'éducation announced the main guidelines for the reform of the education system. Seven major lines of action were defined:

- provide services for young children, in particular, by implementing full-time kindergarten
- teach the essential subjects throughout elementary and secondary school
- give more autonomy to schools
- support Montréal schools, given the particular challenges they are facing
- intensify the reform of vocational and technical education
- consolidate and rationalize postsecondary education
- provide better access to continuing education

Concrete changes have already been made: in particular, kindergarten was made full-time for 5-year-olds in the fall of 1997. At the college level, a new financial measure promoting educational success was introduced in 1997-1998: special fees of $2.00 per hour levied for each course not successfully completed (with the exception of the first course) should raise the success rate from 83% to 90% by the end of the 1999-2000 school year. At the secondary level, the diversification of vocational education options has also been undertaken and will provide access to programs leading to a DVS after Secondary III and the implementation of programs leading to an Attestation of Vocational Education (AVE) that will prepare students who have completed Secondary II to practise a semiskilled occupation.

1.1 Educational Spending in Relation to the GDP

In 1998-1999, Québec allocated 7.8% of its gross domestic product (GDP) to education,[1] compared with the Atlantic Provinces at 8.4%, Ontario at 6.1%, and Western Canada at 6.7%. When this indicator is considered, it is evident that Québec educational spending remains higher than the average for the other provinces or the United States.

In 1998-1999, the share of the GDP allocated to education was higher in Québec than in the rest of Canada as a whole, and in the United States. However, compared with the situation that prevailed in the early 1980s, the gap has narrowed.

Between 1981 and 1989, the share of the GDP earmarked for education in Québec dropped considerably (from 9.3% to 7.3%), while it increased slightly in the rest of Canada (from 6.5% to 6.7%), and showed a slightly higher rise in the United States (from 6.3% to 7.0%). The gap of 2.8 percentage points between Québec educational spending and that of the rest of Canada in 1981-1982 was therefore reduced to 0.6 percentage points in 1989-1990; the gap between Québec and the United States decreased to 0.3 percentage points. The fact that Québec has moved closer to the North American average can largely be explained by the more restrictive measures adopted by the Québec government to control spending during that period.

Between 1989 and 1993, a period of economic recession, the share of the GDP allocated to education rose in all regions of Canada and in the United States, with the result that, in 1993-1994, Québec spent 8.7% of its GDP on education, the rest of Canada spent 7.7% and the United States spent 7.3%.

Between 1993 and 1998, the share of the GDP spent on education decreased in all regions of Canada, because of budget cuts. In Québec it went from 8.7% to 7.8%, while in the rest of Canada, it went from 7.7% to 6.6%. In the United States, educational spending has been relatively stable and is estimated at 7.2% for 1998-1999.

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1. In 1998-1999, Québec spent $15.1 billion of its $193.2-billion GDP on education. The concept of total spending used in this document is defined at the bottom of Table 1.1.

If the share of the GDP allocated to education in Québec is compared with that allocated by the member countries of the Organisation for Economic Co-operation and Development (OECD) in 1997, Québec ranks among the countries with the highest educational spending. This is primarily because teaching costs are relatively higher in Québec than the average for OECD countries. The fact that postsecondary education is more developed in Québec than in the OECD countries also helps explain Québec's higher level of educational spending.[2]

To explain why Québec invested a greater share of its GDP in education than the rest of Canada in 1998-1999, the following factors can be considered: per-student spending; collective wealth (defined by the per capita GDP); school attendance rate (the ratio of the total school enrollment to the population between 5 and 24 years old) and the demographic factor (the ratio of the 5-24 age group to the total population). Slightly higher per-student spending and a slightly higher enrollment rate contribute to the gap, but are partially offset by the demographic factor (older population in Québec). The most important factor underlying the gap between Québec and the rest of Canada is Québec's lower GDP per capita.

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2. The most recent year for which data is available on the share of the GDP allocated to education for the OECD countries is 1997. Refer to the following *Education Statistics Bulletin*, published by the Direction des statistiques et des études quantitatives of the Ministère de l'Éducation du Québec: Demers, Marius. *Educational Expenditure Relative to the GDP: A Comparison of Québec and OECD Countries*, No. 3, June 1998. This document is available on the Internet at <http://www.meq.gouv.qc.ca>.

Table 1.1

Educational spending[1] in relation to the GDP: Québec, other regions of Canada, and the United States (%)

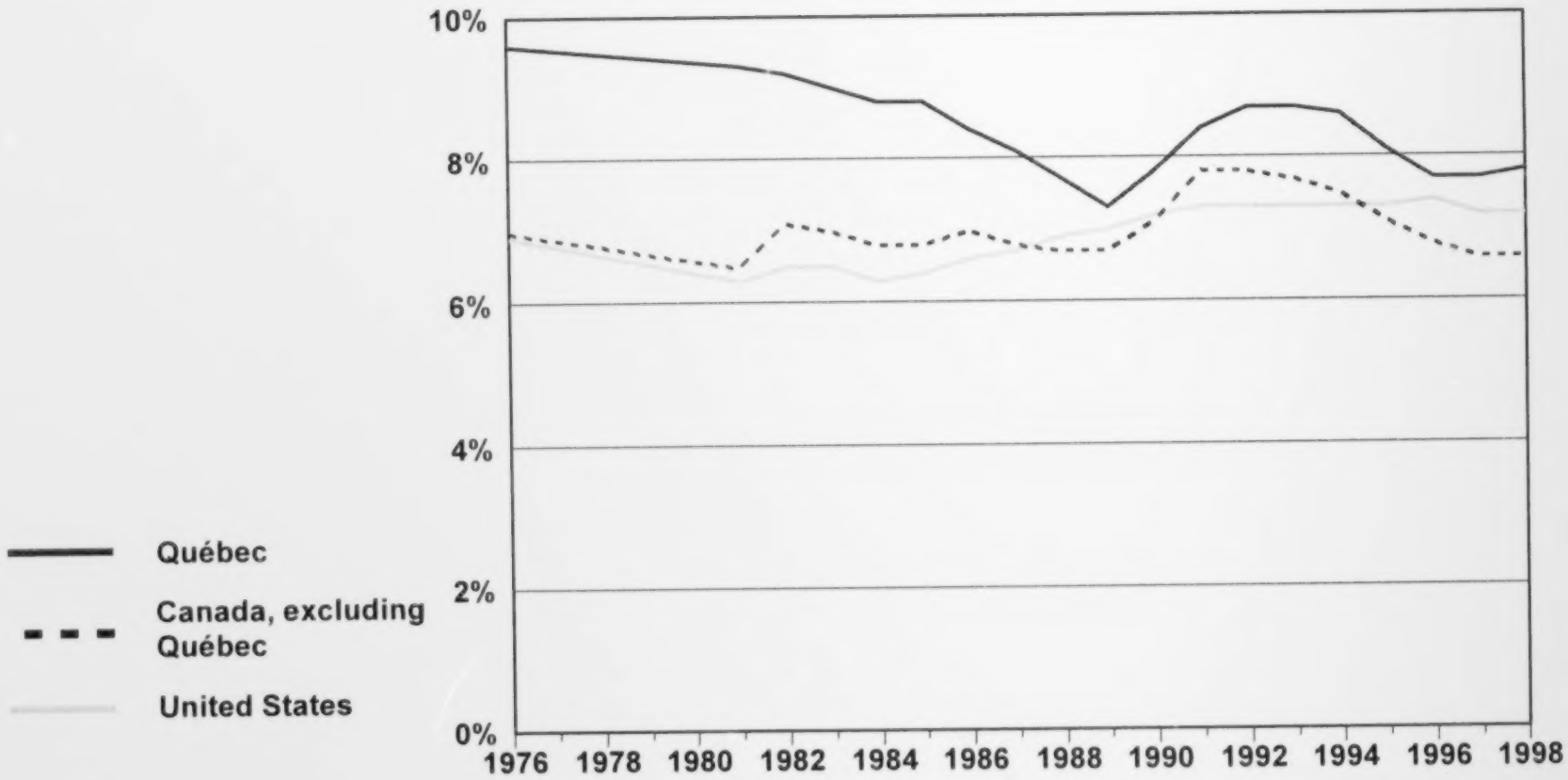
	1976-1977	1981-1982	1989-1990	1993-1994	1997-1998[e]	1998-1999[e]
Québec	**9.6**	**9.3**	**7.3**	**8.7**	**7.7**	**7.8**
Canada, excluding Québec	**7.0**	**6.5**	**6.7**	**7.7**	**6.6**	**6.6**
Atlantic Provinces	10.9	10.5	9.3	9.7	8.5	8.4
Ontario	6.8	6.5	6.2	7.5	6.4	6.1
Western Canada	6.3	5.7	6.6	7.2	6.5	6.7
Canada	**7.6**	**7.1**	**6.8**	**7.9**	**6.9**	**6.9**
United States	**6.9**	**6.3**	**7.0**	**7.3**	**7.2**	**7.2**

e: Estimates

1. Total educational spending includes the operating and capital expenses of all levels of public and private education, the Ministère's administrative expenses, government contributions to employee pension plans, the cost of student financial assistance and other education expenses (as defined by Statistics Canada).

Graph 1.1

Total educational spending in relation to the GDP: Québec, Canada excluding Québec, and the United States (%)



1.2 Total Educational Spending Per Capita

In 1998-1999, total educational spending per capita[1] was estimated at $2 058, higher than the Atlantic Provinces ($1 837), Ontario ($2 005) and Western Canada ($2 039). Graph 1.2 shows the relative change in total educational spending per capita for these regions between 1976 and 1998.

In 1998-1999, total educational spending per capita was slightly higher in Québec than in the rest of Canada.

Table 1.2a shows the data on total spending per capita by level of education in 1998-1999.[2] These figures indicate the distribution of educational spending between the levels of education for the regions in question. The differences in spending per capita observed between regions for a given level of education are explained in part by the organizational differences between the education systems. Thus, the fact that total per-capita spending at the elementary and secondary levels is lower in Québec than in the rest of Canada (with the exception of the Atlantic Provinces) is explained in part by the shorter duration of studies in Québec (11 years in Québec, and generally 12 years in the rest of Canada). Conversely, total spending per capita at the college level is higher in Québec than in the rest of Canada, because of the unique characteristics of our college network (including the mandatory two years of college before entering university).[3]

Table 1.2b shows data on the direct sources of funds for financing total educational spending. These figures indicate that in Québec, provincial subsidies make up a large part of the financing for education (73.8%). This percentage is higher than in the Atlantic Provinces (69.6%), Ontario (57.2%), and Western Canada (54.3%).

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1. Total educational spending includes the operating and capital expenses of all levels of public and private education, the Ministère's administrative expenses, government contributions to employee pension plans, the cost of student financial assistance and other education expenses (as defined by Statistics Canada).
2. The category "Other" in Table 1.2a includes education financed by Human Resources Development Canada, federal spending on language courses, vocational education offered in federal and provincial correctional institutions, various federal and provincial training programs (for example, Emploi Québec) and expenses of private trade schools, art schools, music schools, etc. (as defined by Statistics Canada).
3. Regarding the organizational differences at the college level, see also Section 1.3.

In the other provinces, financing sources other than the government are higher for one or more of the following reasons: local funding is more significant, tuition fees are higher or the educational organizations of the other regions are in a better position to seek out other sources of funding.[4]

In 1999-2000, tuition fees for university students in Québec are less than half ($1 690) the fees required in the rest of Canada ($3 727).[5] Furthermore, unlike in Québec, students in the other provinces enrolled at a level equivalent to college may be required to pay tuition fees. Thus, according to a survey of technical colleges in Ontario, conducted by telephone in the fall of 1999, the average annual cost of education (tuition fees and other expenses) applicable to Canadian citizens and permanent residents was $2 221. In Québec, the only fees required of students enrolled in college-level technical education are for school supplies, photocopies and registration—generally around $100 to $300 per year.

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4. It must be noted, however, that there are comparatively more private schools in Québec than in the rest of Canada, and that the tuition fees paid to the schools are included in the other sources of funding.
5. See Section 1.15.

Table 1.2a

Total educational spending per capita: Québec and other regions of Canada, 1998-1999[e] ($)

	Elementary and secondary	Pre-university[1]	University	Other[2]	Total
Québec	**1 135**	**254**	**437**	**232**	**2 058**
Canada, excluding Québec	**1 284**	**129**	**413**	**201**	**2 027**
Atlantic Provinces	1 048	72	457	260	1 837
Ontario	1 334	124	400	147	2 005
Western Canada	1 262	145	411	221	2 039
Canada	**1 248**	**159**	**419**	**208**	**2 034**

Table 1.2b

Direct sources of funds for total educational spending: Québec and other regions of Canada, 1998-1999[e] (%)

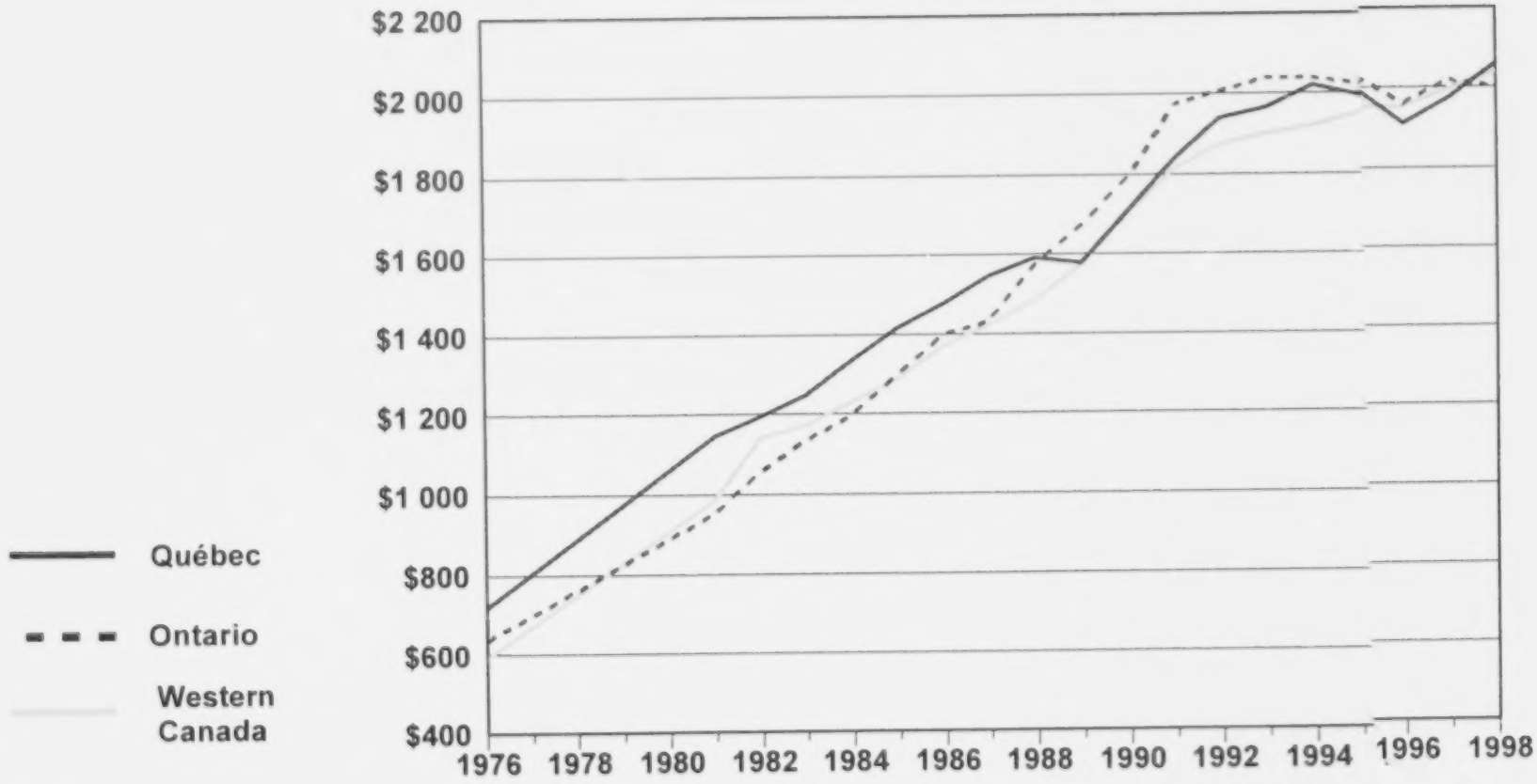
	Provincial government	Federal government	Local government	Other sources	Total
Québec	**73.8**	**9.1**	**5.9**	**11.2**	**100.0**
Canada, excluding Québec	**57.0**	**10.7**	**19.1**	**13.2**	**100.0**
Atlantic Provinces	69.6	15.6	3.3	11.5	100.0
Ontario	57.2	7.8	21.7	13.3	100.0
Western Canada	54.3	11.5	20.4	13.8	100.0
Canada	**61.1**	**10.3**	**15.9**	**12.7**	**100.0**

e: Estimates

1. Regarding the organizational differences at the college level, see Section 1.3.
2. See Note 2 at the bottom of the text.

Graph 1.2

Total educational spending per capita: Québec, Ontario and Western Canada (current dollars)



1.3 Total Educational Spending per Student in Relation to Per Capita GDP

Total per-student spending is an indicator of financial investment in education, and the per capita gross domestic product (GDP) is an indicator of collective wealth. Relating the two provides an indicator of the relative financial investment in education, that is, per-student spending expressed as a percentage of the per capita GDP.

When collective wealth is factored in, Québec's collective investment in education remains higher than the average for the rest of Canada.

To calculate this indicator, the concept of spending per student is more inclusive than that used in other sections of this chapter.[1] In 1998-1999, total per-student spending was slightly lower in Québec than the average for the rest of Canada for elementary and secondary education as well as for college education, but it was higher for university education. There are also significant differences when each region of Canada is considered (see Table 1.3a).

In 1998-1999, total per-student spending at the elementary and secondary level ($6 783) was higher than in the Atlantic Provinces ($6 084), but lower than in Ontario ($7 298) or Western Canada ($6 957).

Total per-student spending at the college level was higher in Québec ($11 519) than in the Atlantic Provinces ($8 872) or Ontario ($10 059), but significantly lower than in Western Canada ($17 288). The comparisons of spending at the college level are provided as a reference only, as this level cannot truly be compared between regions because of significant organizational differences. Thus, in Québec, a diploma of college studies in pre-university education is the usual requirement for admission to university, whereas in the other provinces, a secondary school diploma is generally sufficient. In Ontario, college-level programs are offered at technical colleges (colleges of applied arts and technology). In some cases, the programs offered can be compared, to a certain extent, with vocational education programs offered by the Québec school boards. More often, they are comparable to the technical education programs offered by Québec

1. Total educational spending includes the operating and capital expenses of all levels of public and private education, the Ministère's administrative expenses, government contributions to employee pension plans, the cost of student financial assistance and other education expenses (as defined by Statistics Canada). However, in the calculation of total per-student spending at the university level, funded research has been excluded.

CEGEPs. Furthermore, in some provinces in Western Canada (especially Alberta and British Columbia), students can do their first two years of university studies in a college, and then finish their studies at a university.

Total per-student spending at the university level was higher in Québec ($16 554) than in the Atlantic Provinces ($14 144) or Ontario ($15 087), but lower than in Western Canada ($18 828). The previously mentioned organizational differences partly explain the gaps observed between the regions. For example, the fact that students in Western Canada can do their first two years of university in a college, then finish their studies in a university, explains in part the higher per-student spending in Western Canada.

Table 1.3b shows total per-student spending in relation to the per capita GDP. Factoring in collective wealth as measured by the per capita GDP, reveals that Québec's collective financial investment in education remains higher than the average for the rest of Canada. The gaps with Ontario are particularly significant, because of the considerable difference in the collective wealth with this province.

Table 1.3a

Total per-student educational spending:[1] Québec and other regions of Canada, 1998-1999 ($)

	Elementary and secondary	Pre-university[1]	University
Québec	**6 783**	**11 519**	**16 554**
Canada, excluding Québec	**7 074**	**12 481**	**16 441**
Atlantic Provinces	6 084	8 872	14 144
Ontario	7 298	10 059	15 087
Western Canada	6 957	17 288	18 828
Canada	**7 008**	**12 091**	**16 469**

Table 1.3b

Total per-student educational spending in relation to the per capita GDP: Québec and other regions of Canada, 1998-1999[e] (%)

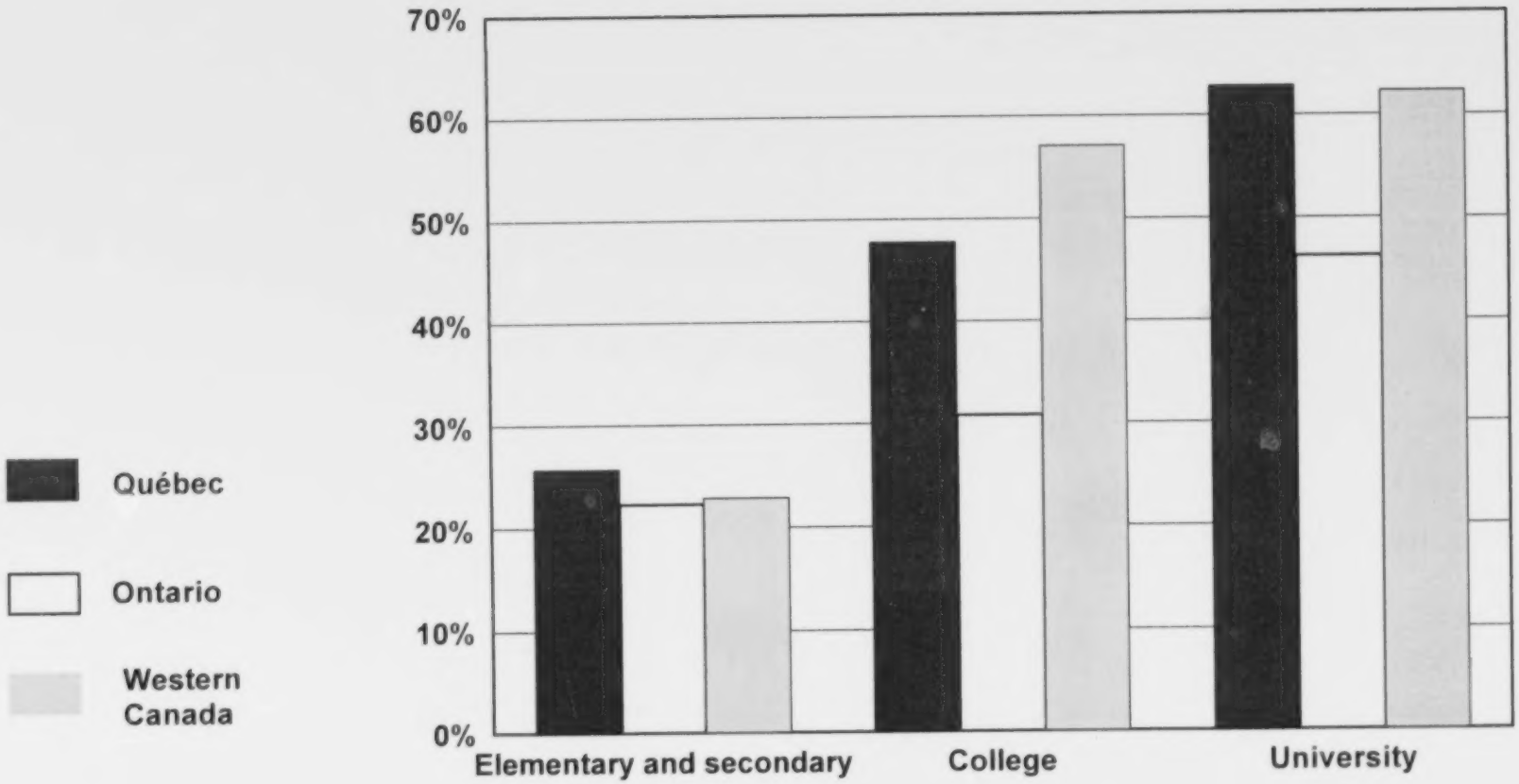
	Elementary and secondary	Pre-university[1]	University[2]
Québec	**25.7**	**47.7**	**62.7**
Canada, excluding Québec	**23.1**	**40.7**	**53.6**
Atlantic Provinces	27.7	40.4	64.4
Ontario	22.3	30.8	46.2
Western Canada	23.0	57.1	62.2
Canada	**23.7**	**40.8**	**55.6**

e: Estimates

1. Regarding the organizational differences at the college level, see the text.
2. See Note 1 at the bottom of the text.

Graph 1.3

Total educational spending per student in relation to per capita GDP: Québec, Ontario and Western Canada (%)



1.4 Cost of Educating Graduates and Sources of Funding

In 1998-1999, the total cost of a secondary school diploma was estimated at $82 753, of a college-level pre-university or technical diploma at $106 116 and $133 023, respectively, and of a bachelor's degree, $164 053.

In 1998-1999, the total cost of a bachelor's degree was $164 053 in Québec. More than 85% of funding for education came from the public purse.

The concept of expenses used here includes operating expenses (not including funded research), capital expenses of educational institutions, the Ministère's administrative expenses, government contributions to employee pension plans, the cost of financial assistance to students, and other education expenses. For secondary school graduates, the cost is based on all the years during which school was attended at the preschool, elementary (regular) and secondary (general) levels. For students graduating with a Diplôme d'études collégiales (DEC–diploma of college studies) in pre-university education, the cost is based on all the years attended at the preschool, elementary (regular), secondary (general) and college (pre-university) levels. For students graduating with a DEC in technical education, the cost is based on all the years attended at the preschool, elementary (regular), secondary (general) and college (technical) levels. For graduates with a bachelor's degree, the cost is based on all the years attended at the preschool, elementary (regular), secondary (general), college (pre-university) and undergraduate levels.

To calculate the cost of educating a graduate, an estimate of the annual spending per student at each level of education in 1998-1999 was used,[1] as well as the average duration of studies completed by those who obtained the diploma or degree.[2] The expenses incurred by students leaving school without a diploma or degree were not taken into account.

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1. Here the university level encompasses undergraduate, graduate and doctoral studies. The cost of studies leading to a bachelor's degree is therefore slightly overestimated.
2. At the university level, one year of studies equals two full-time terms. A part-time term is counted as one third of a full-time term at the university level and one quarter at the college level.

It is also possible to break down the various sources of funding for a bachelor's degree. The total cost for all the years of schooling at the preschool, elementary (regular), secondary (general), college (pre-university) and undergraduate levels are considered.[3]

Table 1.4b presents the main sources of funding for a bachelor's degree in 1998-1999, in comparison with Ontario.[4] In Québec, the provincial government finances 78.7% of the total cost of a bachelor's degree, whereas the Ontario government contributes only 57.5%. Ontario relies much more heavily on local taxes than Québec (25.1% compared with 7.7%). Tuition fees, which are included under the heading "Individuals" in Table 1.4b, are higher in Ontario than in Québec.[5]

If government subsidies and school taxes are taken together, public funding stands at 86.4% in Québec and 82.6% in Ontario.

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3. The calculations of the sources of funding for a bachelor's degree are based on the education provided for a typical individual who has attended public institutions.
4. Since the data needed for calculating the real duration of education in Ontario is not available, it is impossible to establish the real cost of a bachelor's degree in that province. To calculate the relative contributions of sources of funding for a bachelor's degree in Québec and Ontario, the estimate of the cost of education was based on theoretical durations of studies. Quebeckers who obtain a bachelor's degree without any delay in their studies have attended school for 16 years: that is, 6 years of elementary school, 5 of secondary school, 2 of CEGEP and 3 at the university level. For Ontario, it has also been supposed that students who obtain a bachelor's degree without any delay in their studies have attended school for 16 years: 12 years of elementary and secondary school, and 4 years of university.
5. See Section 1.15.

Table 1.4a

Total cost of various diplomas and a bachelor's degree,[1] 1998-1999[e]

	Average duration of studies (years)	Cost of education ($)
Secondary School Diploma	11.2	82 753
DEC (diploma of college studies)		
Pre-university education	13.6	106 116
Technical education	15.0	133 023
Bachelor's degree	17.1	164 053

Table 1.4b

Sources of funding for a bachelor's degree, 1998-1999[e] (%)

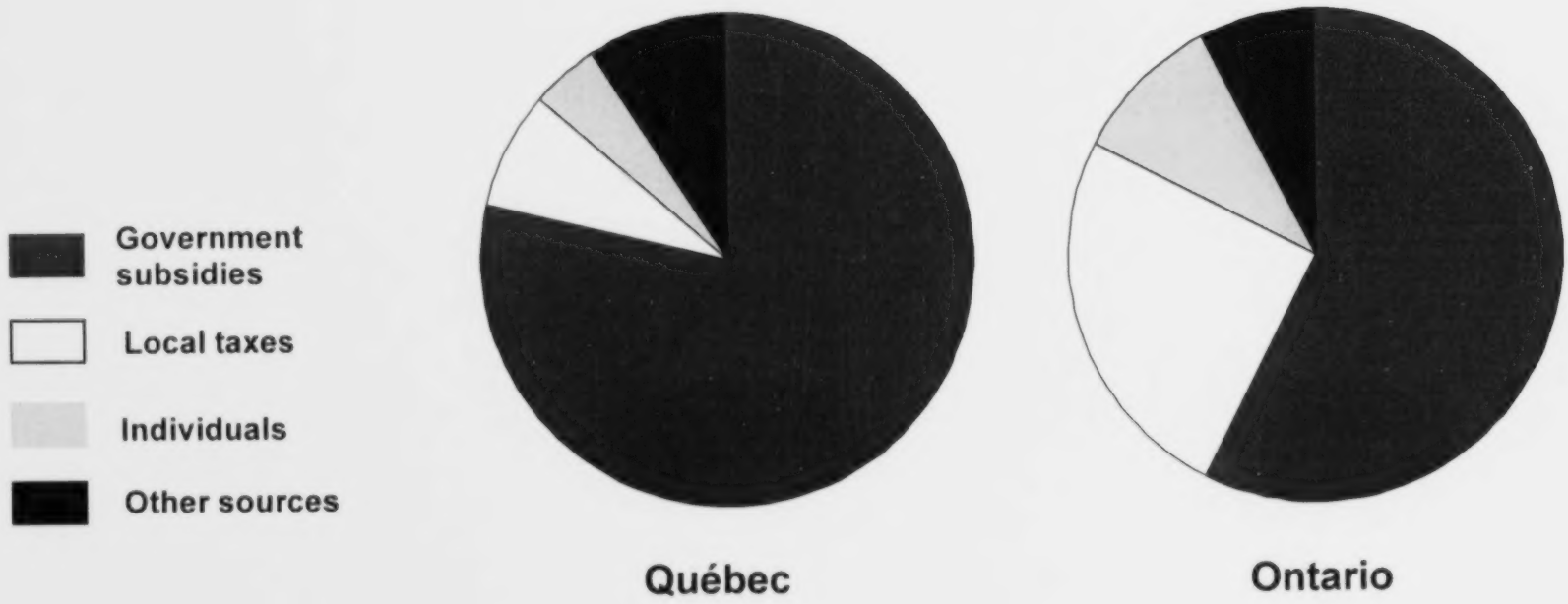
	Québec	Ontario
Government subsidies[2]	78.7	57.5
Local taxes	7.7	25.1
Individuals	4.5	9.9
Other sources	9.1	7.5
Total	100.0	100.0

e: Estimates

1. Preschool education is included in the cost but not in the average duration of studies indicated in the table, since it is not generally recognized as a year of academic pursuit.
2. Includes provincial and federal government subsidies.

Graph 1.4

Sources of funding for a bachelor's degree: Québec and Ontario, 1998-1999



1.5 Total Spending on Elementary and Secondary School in Relation to the GDP

In 1998-1999, Québec spent roughly the same portion of its GDP on elementary and secondary education as the average for the rest of Canada.

In 1998-1999, it was estimated that 4.3% of Québec's gross domestic product (GDP) was spent on elementary and secondary education,[1] compared with the Atlantic Provinces at 4.8%, Ontario at 4.1%, and Western Canada at 4.2%. In the United States, the share of the GDP allocated to elementary and secondary education was estimated at 4.3%. Québec therefore spends roughly the same share of its GDP on elementary and secondary education as the average for the rest of Canada. It should be kept in mind, however, that the duration of elementary and secondary education in Québec is shorter.[2]

Between 1976 and 1981, the share of the GDP allocated to elementary and secondary education dropped from 6.6% to 6.0% in Québec, while in the rest of Canada it went from 4.6% to 4.3%. In the United States, it fell from 4.4% to 3.9%. The gap between Québec and the rest of Canada with respect to educational funding was 1.7 percentage points in 1981-1982, representing a total of $1.4 billion.

Between 1981 and 1989, the share of the GDP allocated to elementary and secondary education dropped from 6.0% to 4.4% in Québec, while it remained stable in the rest of Canada (as a whole) and rose in the United States. The gap of 1.7 percentage points recorded in 1981-1982 between Québec and the rest of Canada narrowed steadily in subsequent years and disappeared almost entirely in 1989-1990. That same year, the share of the GDP spent on elementary and secondary education in Québec was slightly higher than in the United States. The fact that Québec has now reached the North American average can largely be explained by the more restrictive measures adopted by the Québec government to control spending during that period.

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1. In 1998-1999, Québec spent $8.3 billion of its $193.2-billion GDP on private and public elementary and secondary education. The concept of spending used in this document is defined at the bottom of Table 1.5.
2. The duration of elementary and secondary education is 11 years in Québec and at least 12 years in the other regions considered.

Between 1989 and 1993, a period of economic recession, the share of the GDP allocated to education rose almost everywhere in Canada and the United States, such that in 1993-1994, Québec spent 4.9% of its GDP on elementary and secondary education, that is, the same percentage as in the rest of Canada, while the United States spent 4.4%.

Between 1993 and 1998, the share of the GDP spent on elementary and secondary education decreased in Québec and the other provinces, following budget cuts to school boards. In the United States, it remained essentially stable.

When the share of Québec's GDP spent on elementary and secondary education is compared with that of the member countries of the Organisation for Economic Co-operation and Development (OECD) in 1997, Québec ranked among the countries with the highest educational spending. Québec's higher spending is primarily explained by the cost of teaching, which is higher in Québec than the average for OECD countries.[3]

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3. The most recent year for which data is available on the share of the GDP allocated to education in OECD countries is 1997. For more information regarding comparisons with members countries of the OECD refer to the following *Education Statistics Bulletin*, published by the Direction des statistiques et des études quantitatives of the Ministère de l'Éducation du Québec: Demers, Marius. *Educational Expenditure Relative to the GDP: A Comparison of Québec and OECD Countries*, No. 3, June 1998. This document is available on the Internet at <http://www.meq.gouv.qc.ca>.

Table 1.5

Spending on elementary and secondary education[1] in relation to the GDP: Québec, other regions of Canada, and the United States (%)

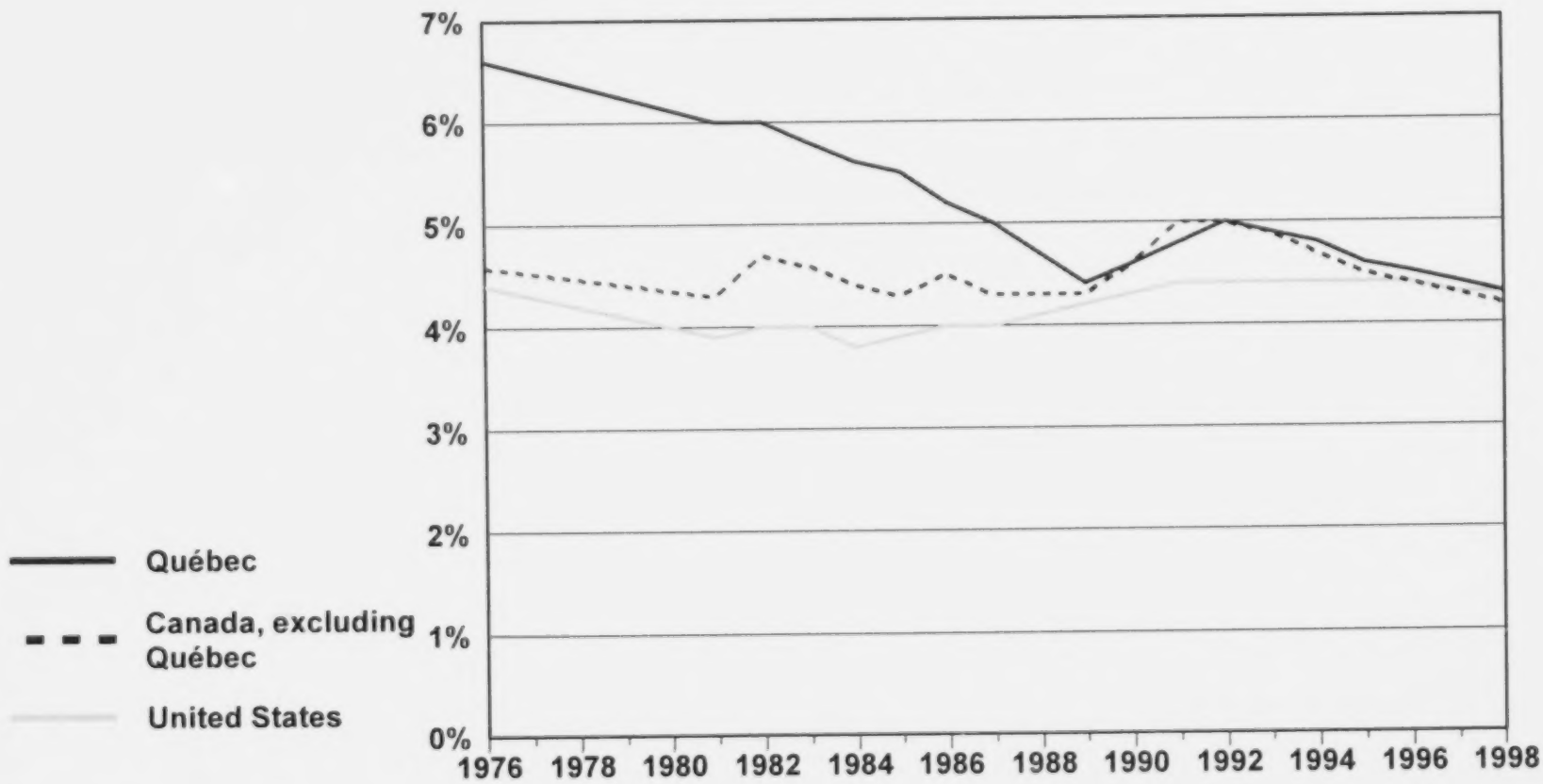
	1976-1977	1981-1982	1989-1990	1993-1994	1997-1998[e]	1998-1999[e]
Québec	**6.6**	**6.0**	**4.4**	**4.9**	**4.4**	**4.3**
Canada, excluding Québec	**4.6**	**4.3**	**4.3**	**4.9**	**4.3**	**4.2**
Atlantic Provinces	7.0	6.9	5.7	5.6	4.8	4.8
Ontario	4.5	4.4	4.3	5.1	4.3	4.1
Western Canada	4.2	3.7	4.1	4.5	4.0	4.2
Canada	**5.1**	**4.7**	**4.3**	**4.9**	**4.3**	**4.2**
United States	**4.4**	**3.9**	**4.2**	**4.4**	**4.3**	**4.3**

e: Estimates

1. These figures include the operating and capital expenses for public and private elementary and secondary education, the Ministère's administrative expenses (the portion attributable to elementary and secondary education), government contributions to employee pension plans and other education expenses (as defined by Statistics Canada).

Graph 1.5

Total spending on elementary and secondary education in relation to the GDP: Québec, Canada excluding Québec, and the United States (%)



1.6 School Board Spending in Current and Constant Dollars

In 1998-1999, school board spending in Québec was estimated at $6.2 billion, student enrollments at approximately 1.1 million, and per-student spending in current dollars at $5 573.[1]

Per-student spending by school boards in constant dollars dropped by 8% between 1993 and 1998.

Between 1976 and 1981, school board spending increased an average of 10.6% per year. This rate dropped to 3.9% per year between 1981 and 1989, and to 4.8% between 1989 and 1993, as lower inflation, salary restrictions and generally more conservative budget policies curbed the rapid increase in spending.

Spending can also be expressed in constant dollars,[2] so as to factor in the rise in the price of goods and services used to provide educational services. The figures show that spending in constant dollars remained relatively stable between 1976 and 1981, while enrollments declined by 17%. This resulted in an increase in real funds available per student: in fact, per-student spending in constant dollars grew by 21% between 1976 and 1981. The following factors contributed to this rise: a lower student-teacher ratio, an increase in teacher qualifications recognized for salary purposes, and the higher cost of job security for teachers.

Between 1981 and 1989, spending in constant dollars changed very little. The level of teacher qualifications recognized for salary purposes increased slightly (an increase in real expenses), but the student-teacher ratio also increased slightly (a decrease in real expenses). Because enrollments decreased slightly during this period (2%), there was a small increase (3%) in per-student spending in constant dollars.

The early 1990s saw an increase in school board operating expenses in constant dollars. This increase is attributable to a rise in enrollments (especially in the adult sector), as well as to significant variations in certain expense items, including expenses for students with handicaps or with learning or adjustment difficulties, consultation and workshop

1. The data presented in this document covers both the youth sector and the adult sector.
2. The school boards' education price index is used to express spending in constant dollars. This index indicates changes in the price of goods and services used to provide educational services. Changes in spending in constant dollars reflect changes in the real funds available to school boards.

activities, and school bus transportation. If per-student spending in constant dollars is considered, the increase is less significant.

Per-student spending by school boards in current and constant dollars dropped between 1993 and 1997. This is attributable to budget cuts and the adoption of cost-saving measures by school boards, as well as to the introduction of full-time kindergarten in Québec school boards in 1997-1998, which resulted in a drop in per-student spending.[3] In 1998-1999, a slight increase in per-student spending in constant dollars was noted.

3. The introduction of full-time kindergarten had the effect of increasing the "relative weight" of a segment of the school population that is relatively less costly.

Table 1.6

School board spending[1]

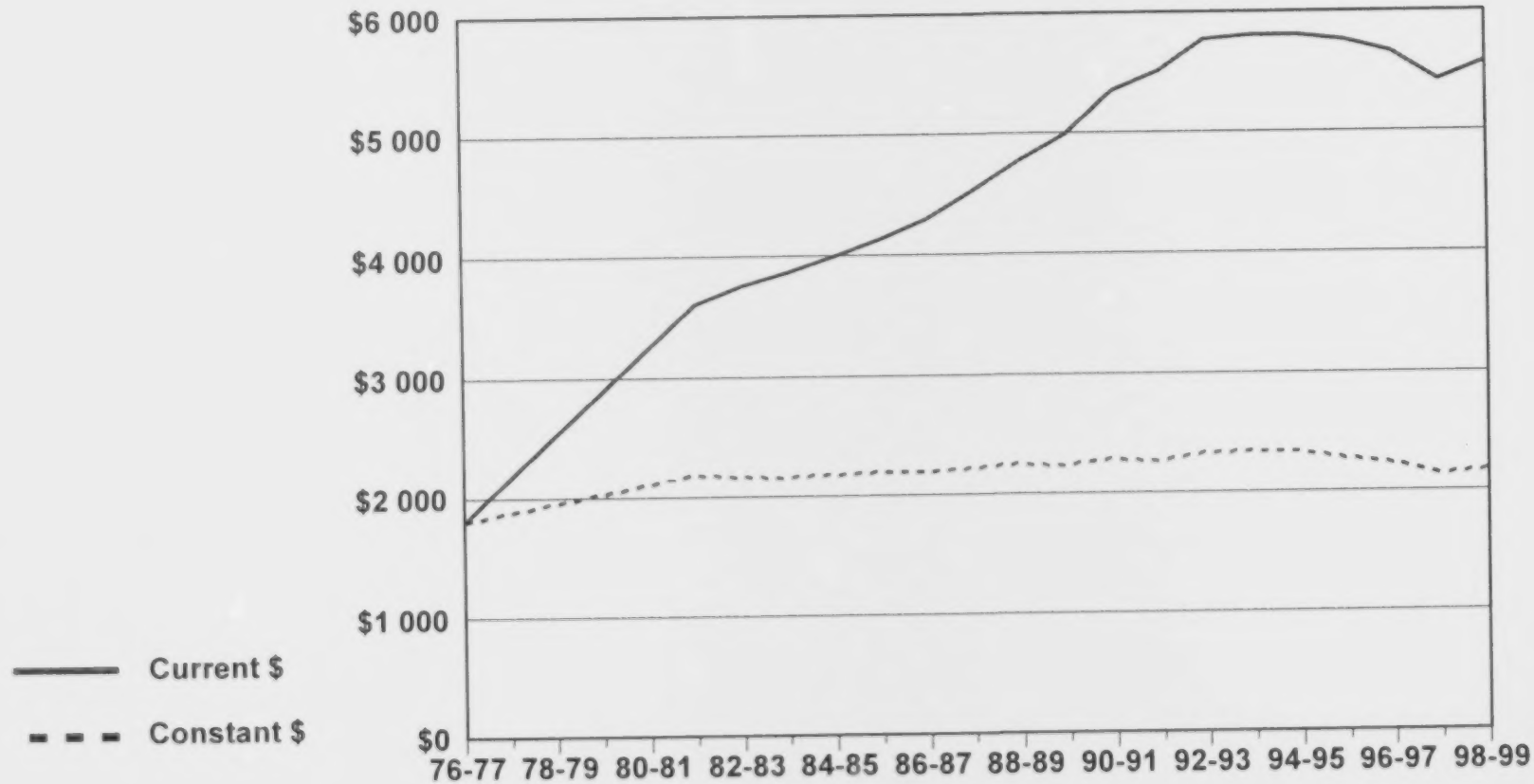
	1976-1977	1981-1982	1989-1990	1993-1994	1997-1998	1998-1999[e]
Total spending (in millions of dollars)						
In current dollars	2 335.3	3 857.0	5 228.2	6 303.9	6 059.5	6 214.7
In constant 1976-1977 dollars[2]	2 335.3	2 337.7	2 348.0	2 539.3	2 389.2	2 420.7
Spending per student ($)						
In current dollars	1 808	3 600	4 991	5 804	5 419	5 573
In constant 1976-1977 dollars[2]	1 808	2 182	2 242	2 338	2 136	2 171

e: Estimates

1. Operating expenses exclude debt service (long-term and current liabilities), capital expenses financed directly from current revenues, and transfer expenses. Revenues from ancillary enterprises have also been deducted from the operating expenses.
2. See Note 2 at the bottom of the text.

Graph 1.6

School board spending in current dollars and in constant 1976-1977 dollars (in millions of dollars)



1.7 School Board Spending per Student

In 1998-1999, spending per-student by Québec school boards was estimated at $5 573, compared with the Atlantic Provinces at $4 777, Ontario at $6 303, and Western Canada at $5 813.[1] In the United States, per-student spending was estimated at $7 363.[2]

In 1998-1999, school board spending per student was higher in Québec than in the Atlantic Provinces, but lower than in the other regions of Canada or the United States.

Between 1976 and 1981, spending per student rose by 101% in Québec, compared with 82% in the rest of Canada and 73% in the United States. The sharper decline in Québec enrollments accounted for a large increase in per-student spending, owing to constraints which prevented expenses from being slashed in proportion to the drop in enrollments. More costly salary policies, a greater decrease in the student-teacher ratio and the higher cost of job-security policies also contributed to the more rapid rise of per-student spending in Québec during this period. In 1981-1982, per-student spending was 28% higher in Québec than in the rest of Canada, and 14% higher than in the United States.

Between 1981 and 1993, Québec spending per student rose by 63%, compared with 108% in the rest of Canada and 115% in the United States. The increase was most pronounced in Ontario: 127%. In Québec, the slower growth in spending was a result of salary-restriction measures applied to school board employees. During that time, the working conditions of school board employees were improving significantly in Ontario and in the United States, with the result that per-student costs have been higher in these areas than in Québec since the mid-1980s.

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1. Operating expenses exclude debt service, adult education (except for Québec as of 1990-1991), capital expenses financed directly from current revenues, and transfer expenses. As of 1990-1991, school board spending in Québec includes adult education, as a result of changes in the school boards' financial statements, which no longer make it possible to clearly separate financial statistics for the youth sector and the adult sector. The school enrollment used to calculate per-student spending is based on this new concept. The impact of this modification on per-student spending was negligible.
2. In this comparison, per-student spending in the United States is expressed in Canadian dollars. American dollars are converted to Canadian dollars using the purchasing power parity rates (PPP) produced by the OECD. "Purchasing Power Parities (PPPs) are the rates of currency conversion that equalize the purchasing power of different currencies. This means that a given sum of money, when converted into different currencies at the PPP rates, will buy the same basket of goods and services in all countries. Thus PPPs are the rates of currency conversion which eliminate differences in price levels between countries." (OECD, *National Accounts*)

Between 1993 and 1998, per-student spending decreased in Québec, while it fluctuated in the other regions of Canada. In Québec, the 4% decrease between 1993 and 1998 was chiefly due to budget cuts, and more specifically, to a reduction in labour costs. It should also be noted that the introduction of full-time kindergarten in Québec school boards in 1997-1998 has brought down per-student spending.[3]

In the United States, per-student spending was on an upward trend and was 32% higher than in Québec in 1998-1999. A comparison of Québec with the United States as a whole for 1998-1999 reveals that per-student spending was higher in 48 U.S. states,[4] and lower in 3 states. Compared with Ontario, per-student spending was higher in 40 states,[4] and lower in 11 others.

---

3. The introduction of full-time kindergarten had the effect of increasing the "relative weight" of a less costly student population.
4. Including the District of Columbia.

Table 1.7

School board spending per student:[1] Québec, other regions of Canada, and the United States (in constant dollars[2])

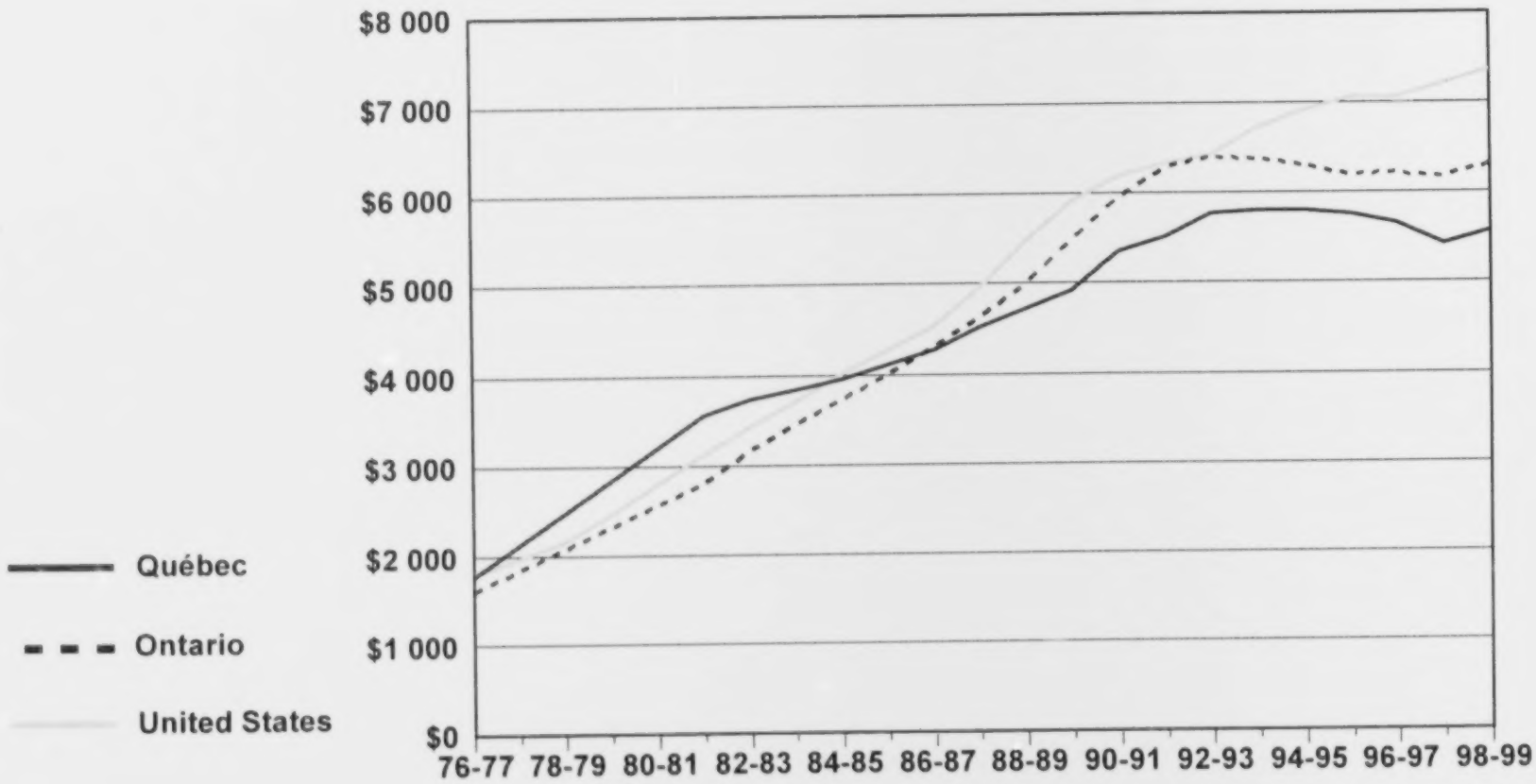
	1976-1977	1981-1982	1989-1990	1993-1994	1997-1998	1998-1999[e]
Québec	**1 769**	**3 563**	**4 925**	**5 804**	**5 419**	**5 573**
Canada, excluding Québec	**1 522**	**2 776**	**4 968**	**5 783**	**5 825**	**5 975**
Atlantic Provinces	1 190	2 169	3 918	4 407	4 625	4 777
Ontario	1 613	2 813	5 486	6 397	6 187	6 303
Western Canada	1 525	2 941	4 578	5 327	5 625	5 813
Canada	**1 584**	**2 956**	**4 959**	**5 788**	**5 734**	**5 886**
United States	**1 800**	**3 121**	**5 917**	**6 720**	**7 196**	**7 363**

e: Estimates

1. Operating expenses exclude debt service (long-term and current liabilities), adult education (except for Québec as of 1990-1991), capital expenses financed directly from current revenues as well as transfer expenses. Revenues from ancillary enterprises have also been deducted from the operating expenses. See also Note 1 in text.
2. See Note 2 at the bottom of the text.

Graph 1.7

School board spending per student: Québec, Ontario and the United States (in current dollars)



1.8 Student-Teacher Ratio in School Boards

In 1998-1999, the average number of students per teacher was lower in Québec than in Ontario or the United States. The gap is not as wide, however, as in the early 1980s.

In 1998-1999, the average number of students per teacher in school boards was estimated to be 16.2 in Québec, 18.4 in Ontario and 16.9 in the United States. The student-teacher ratio is calculated by dividing the number of students by the number of teachers in the school boards. Data on enrollments and teaching personnel is expressed in full-time equivalents. The ratio therefore does not indicate the average number of students per class. To understand the difference between these two ratios, the student-teacher ratio must be considered as a composite indicator that is the result of three variables: the number of students per class, the average teaching time of teachers and the average learning time of students.

The 1970s were marked by a significant decline in enrollments without any corresponding reduction in the number of teachers, with the result that the student-teacher ratio dropped in all three regions observed. In Québec, the drop was particularly steep during the first half of the decade, owing to lighter teaching loads and changes in the composition of the student population. The workload reduction was obtained as a result of centralized collective bargaining. In Ontario and the United States, negotiations between teachers' unions and employers are conducted locally in each school board, and most collective agreements contained no provisions on teaching loads during that time.

In the early 1980s, however, a major reversal occurred in Québec. As part of the cutbacks in spending that took place during that time, teaching loads increased, and the average number of students per teacher also rose slightly, from 16.2 in 1981 to 16.5 in 1989. During this period, the student-teacher ratio continued to drop in Ontario and in the United States, falling to 17.8 and 16.7, respectively, in 1989-1990.

Between 1989 and 1993, the average number of students per teacher dropped from 16.5 to 15.8 in Québec. This decline was largely due to changes in the composition of the student population under consideration. Since 1990-1991, figures for enrollments and the number of teaching positions that have been used to calculate the student-teacher ratio have covered both the youth and adult sectors (in previous years, only the youth sector was considered).[1] In Ontario, the

1. See Note 2 at the bottom of Table 1.8.

average number of students per teacher went from 17.8 in 1989-1990 to 17.6 in 1993-1994, and in the United States, it rose from 16.7 to 16.9 during the same period.

Since 1993-1994, the student-teacher ratio has increased slightly in Québec and has barely changed in the United States, but increased significantly in Ontario (from 17.6 to 18.4). The latter increase is a result of staffing cuts under the social contract legislation passed in 1993. One of the objectives of this legislation was to reduce the number of teachers in the school boards by 4.75% by August 31, 1996. However, the reduction in personnel was expected to be achieved primarily by attrition, and attrition credits were to be allocated to take into account the fact that teachers were not being hired despite an increase in enrollments.

In 1998-1999, the student-teacher ratio in Québec school boards was estimated to be 2.2 students lower than in Ontario and 0.7 students lower than in the United States.[2] A comparison of Québec with the United States as a whole for 1998-1999 reveals that the number of students per teacher was higher in 21 states and lower in 30 states[3] (according to the most recent figures available for each state). However, only 6 states had an average number of students per teacher higher than Ontario.

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2. The lower student-teacher ratio in Québec indicates a higher number of teachers here than in our neighbours' schools. It must be noted, however, that there is relatively more non-teaching personnel in Ontario than in Québec, and this partly compensates the higher number of teachers in Québec. Non-teaching personnel encompasses management personnel as well as non-teaching professionals who work in the schools (including student advisers, guidance counsellors and pastoral animators).
3. Including the District of Columbia.

Table 1.8

Student-teacher ratio[1] in school boards: Québec, Ontario and the United States

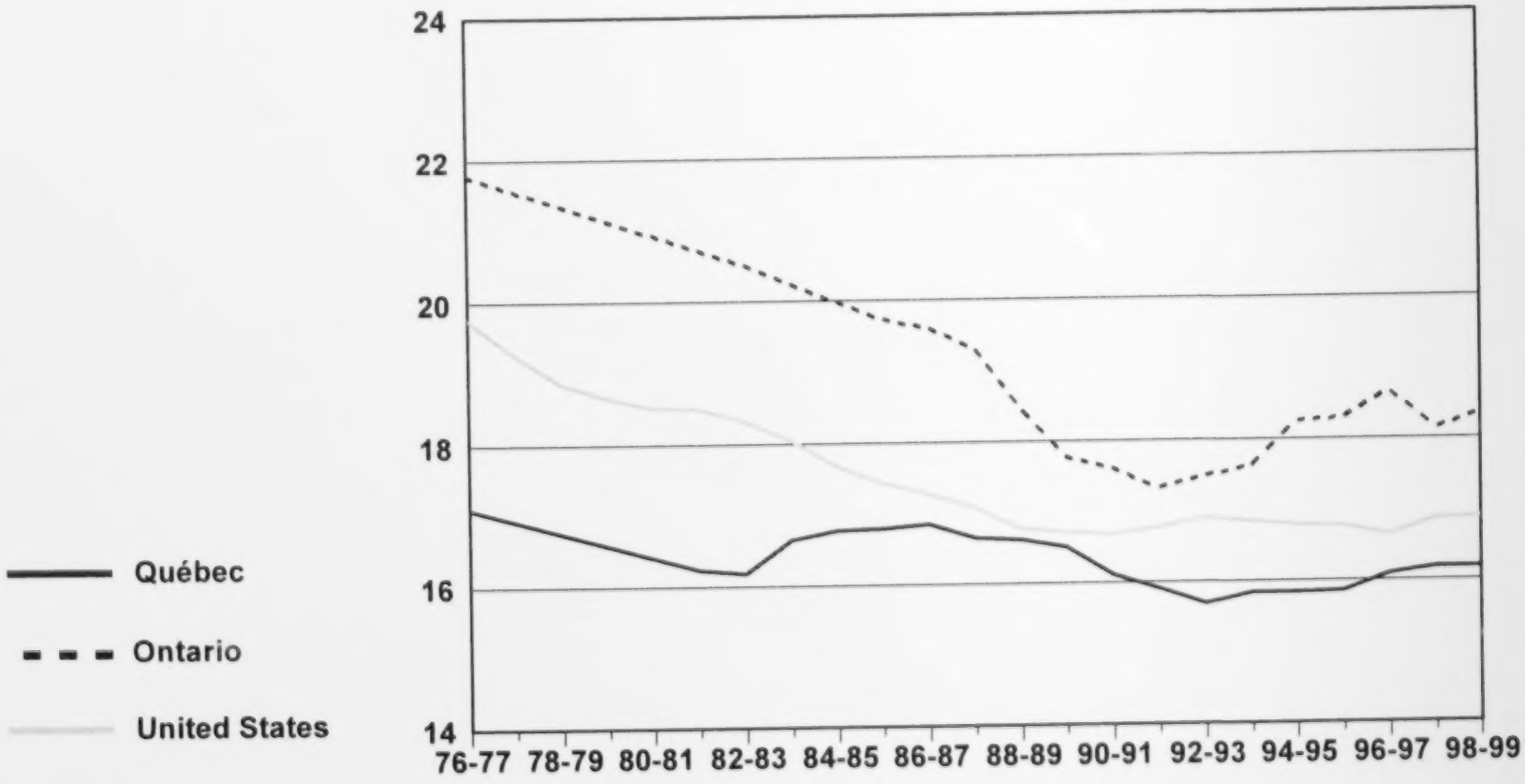
	1976-1977	1981-1982	1989-1990	1993-1994	1997-1998	1998-1999[e]
Québec[2]	17.1	16.2	16.5	15.8	16.2	16.2
Ontario[3]	21.8	20.7	17.8	17.6	18.2	18.4
United States	19.8	18.5	16.7	16.9	16.9	16.9

e: Estimates

1. The enrollments and the teaching positions used to calculate the student-teacher ratio are based on full-time equivalents.
2. As of 1990-1991, the enrollments and the number of teachers in Québec school boards used in the calculation of the student-teacher ratio cover both the youth sector and the adult sector (in previous years, only the youth sector was considered). This modification is a result of changes in the school boards' financial statements, which no longer make it possible to clearly separate financial statistics for the youth sector and the adult sector. For the sake of consistency in the concepts used in all the sections dealing with financial investment in education, a decision was made to produce a student-teacher ratio covering both sectors as of 1990-1991.
3. In order to take into account differences between Ontario and Québec in their definition of teaching staff, some adjustments have been made to the Ontario data (e.g. the exclusion of principals and vice-principals). The figures used are therefore estimates.

Graph 1.8

Student-teacher ratio in school boards: Québec, Ontario and the United States



1.9 Average Salary of Teachers in School Boards

In 1998-1999, the average salary of teachers in Québec school boards was estimated at $42 908,[1] as against $56 574 in Ontario and $45 687 in the United States.[2]

Québec teachers earned an average of $42 908 in 1998-1999, that is, 24% less than teachers in Ontario and 6% less than teachers in the United States.

Between 1976 and 1981, teachers in Québec received higher raises (81%) than teachers in Ontario (66%) or the United States (45%). Variations in salary policies explain these major differences. In 1981-1982, the average salary of Québec teachers was slightly higher than that of their Ontario counterparts ($28 983 compared with $28 672) and 17% higher than that of U.S. teachers ($24 671).

This trend was reversed in Québec between 1981 and 1993. As part of the general budget constraints during this period, salaries were rolled back and less generous salary indexation policies were set. Meanwhile, the salary conditions for teachers in Ontario and in the United States were improving, such that by 1993-1994, Québec teachers were earning on average 21% less than Ontario teachers and 5% less than U.S. teachers.

Since 1993-1994, the average salary of teachers in Québec has remained relatively stable, while it increased slightly in Ontario and the United States. In Québec, in a battle against budget deficits, agreements between the government and unions have resulted in the average salary of teachers rising very little. Also, in 1997, a vast program of voluntary retirement resulted in a younger average age of teachers in Québec, and consequently, a decrease in the average salary.

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1. The average salary is calculated for all Québec teachers (regardless of their status) and does not take into account the effect of the proposed pay-equity legislation. The salary adjustment is to be spread over a seven-year period going back to 1995-1996.
2. The calculation of the average salary of U.S. teachers is based on data from the National Education Association. This data was then expressed in Canadian dollars using the purchasing power parity rates (PPP) set by the OECD. "Purchasing Power Parities (PPPs) are the rates of currency conversion that equalize the purchasing power of different currencies. This means that a given sum of money, when converted into different currencies at the PPP rates, will buy the same basket of goods and services in all countries. Thus PPPs are the rates of currency conversion which eliminate differences in price levels between countries." (OECD, *National Accounts*).

A comparison of Québec with the United States as a whole for 1998-1999 reveals 29 U.S. states[3] where the average salary of teachers was higher than in Québec, and 22 states where it was lower. Furthermore, in only 5 U.S. states (including Alaska and the federal District of Columbia) was the average salary higher than in Ontario.

A comparison of the salary of teachers in school boards in Québec with that in the OECD countries is possible using indicators such as the starting salary, salary after 15 years of seniority and maximum salary. According to these indicators, in 1997-1998, the salary of teachers in school boards in Québec was relatively higher than in most of the OECD countries.[4]

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3. Including the District of Columbia.
4. The most recent year for which data on the salary of teachers in OECD countries data is available is 1997. For more information on comparisons with OECD countries, refer to the following *Education Statistics Bulletin*, published by the Direction des statistiques et des études quantitatives of the Ministère de l'Éducation du Québec: Demers, Marius. *Statutory Salaries and Teaching Time of Teachers in Public Elementary and Lower Secondary Schools: A Comparison of Québec and OECD Countries*, No. 2, November 1997. This document is available on the Internet at <http://www.meq.gouv.qc.ca>.

Table 1.9

Average salary of teachers in school boards: Québec, Ontario and the United States (in current dollars)

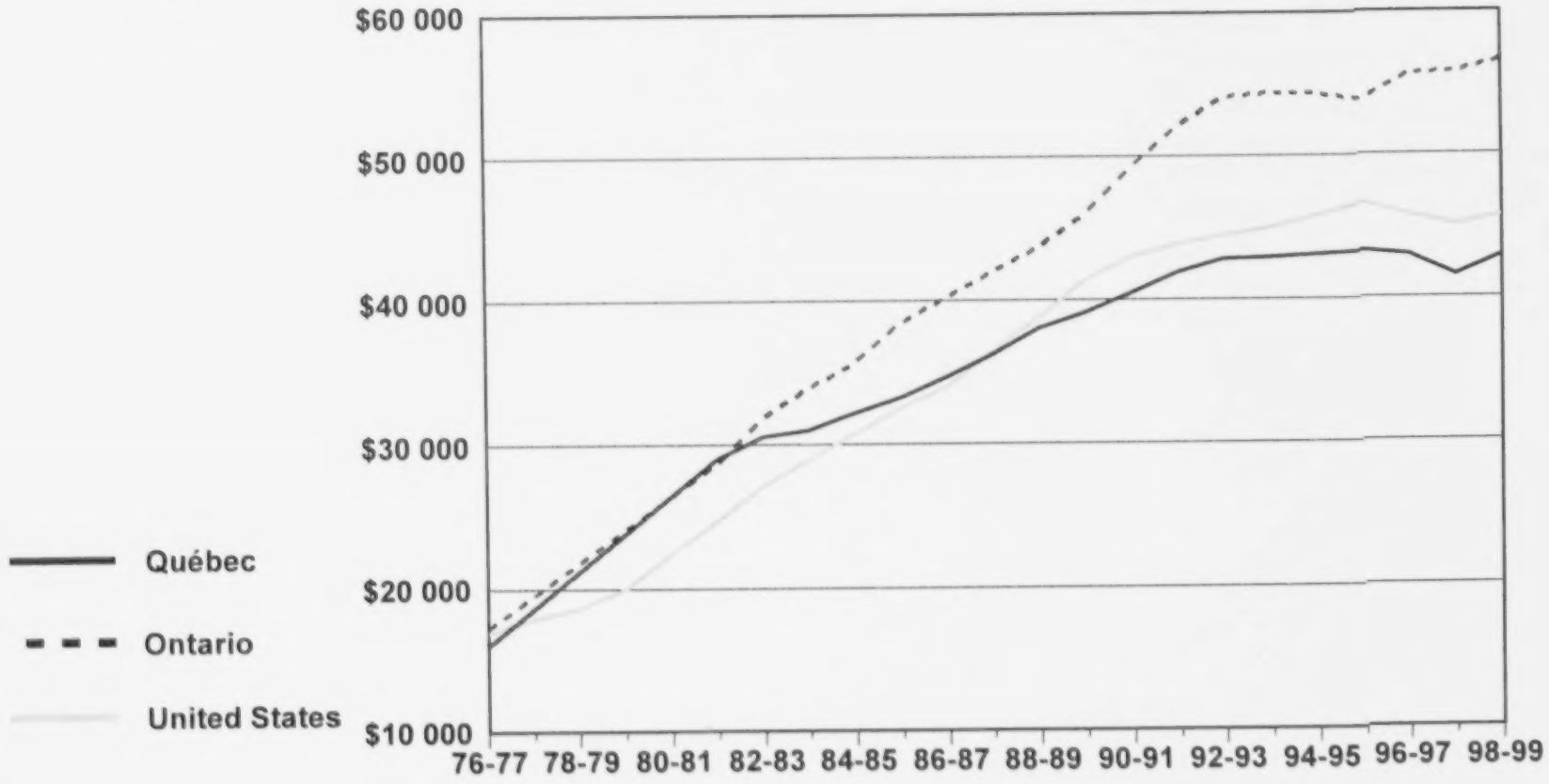
	1976-1977	1981-1982	1989-1990	1993-1994	1997-1998	1998-1999[e]
Québec[1]	16 046	28 983	39 091	42 897	41 595	42 908
Ontario[2]	17 229	28 672	45 995	54 377	55 738	56 574
United States[3]	16 960	24 671	41 404	45 024	45 108	45 687

e: Estimates

1. As of 1990-1991, these figures refer to the average salary of teachers in both the youth sector and the adult sector (in previous years, only the youth sector was considered). This modification is a result of changes in the school boards' financial statements, which no longer make it possible to clearly separate financial statistics for the youth sector and the adult sector. For the sake of consistency in the concepts used in all the sections dealing with financial investment in education, a decision was made to produce an average salary of teachers covering both sectors as of 1990-1991.
2. In order to take into account differences between Ontario and Québec in their definition of teaching staff, some adjustments have been made to the Ontario data (e.g. the exclusion of principals and vice-principals). The figures used are therefore estimates.
3. See Note 1 at the bottom of the text.

Graph 1.9

Average salary of teachers in school boards: Québec, Ontario and the United States (in current dollars)



1.10 CEGEP Spending

In 1998-1999, CEGEP spending on regular education was slightly more than $1 billion, with student enrollments at around 155 000.[1] Per-student spending was an estimated $6 686.

In 1998-1999, CEGEP spending was similar to that of 1992-1993, in spite of a 5% increase in enrollments. This can be primarily explained by budget cuts and a reduction in labour costs.

Between 1976 and 1981, CEGEP spending on regular education increased at an average compound rate of 14.8%. This rapid growth can be explained primarily by a high inflation rate, salary increases exceeding the inflation rate, and a considerable rise in enrollments (averaging 3.0% per year). This resulted in a 4.2% increase in per-student spending in constant dollars between 1976 and 1981.[2]

Between 1981 and 1989, the rise in operating expenses of CEGEPs was sharply curbed, with the average annual rate of increase in constant-dollar spending dropping to 4.2%. This decrease was a result of a curtailment in the inflation rate, as well as budget cutbacks adopted by the Québec government. Enrollments also continued to rise until the mid-1980s, but then declined. Per-student spending in constant dollars was slightly lower in 1989-1990 than in 1981-1982.

In 1990-1991, per-student spending in current dollars was $6 920, or 8.6% higher than in 1989-1990 (which corresponds to real growth of 3.4%). This increase can be explained primarily by a decline in the student-teacher ratio, following the addition of new positions as part of a collective agreement. The rise in the number of teachers applies to activities such as departmental committees, practicums, professional development for teachers, and student support services.

Between 1990 and 1995, primarily as a result of the Québec government's salary restriction policy, per-student spending remained relatively stable when expressed in current dollars and once again declined when expressed in constant dollars.

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1. The figures on CEGEP enrollments used in this document are based on fall registration.
2. The CEGEPs' education price index is used to express spending in constant dollars. This index indicates the changes in the price of goods and services used to provide educational services in CEGEPs. Changes in spending in constant dollars reflect changes in the real funds available to CEGEPs.

Between 1995 and 1998, CEGEP spending in current dollars showed a decrease primarily attributable to budget cuts and the adoption of cost-saving measures by the CEGEPs. These measures ensue largely from government/union agreements that have made it possible to reduce labour costs. However, as the agreements with the various unions are not the same, the cost-saving measures do not affect all the employees of a given category of personnel in the same way.

Thus, depending on the union to which the teachers belong, the salary cut may be higher or lower. As a trade-off for the salary cut, teachers receive a compensatory leave. There has also been a net decrease in the number of CEGEP employees, as well as a decrease in departmental committees, a restructuring of teaching, and savings due to the influx of younger personnel.

Thus, between 1995 and 1998, per-student spending dropped by 3.5% in current dollars and by 6.1% in constant dollars.

Table 1.10

CEGEP spending[1]

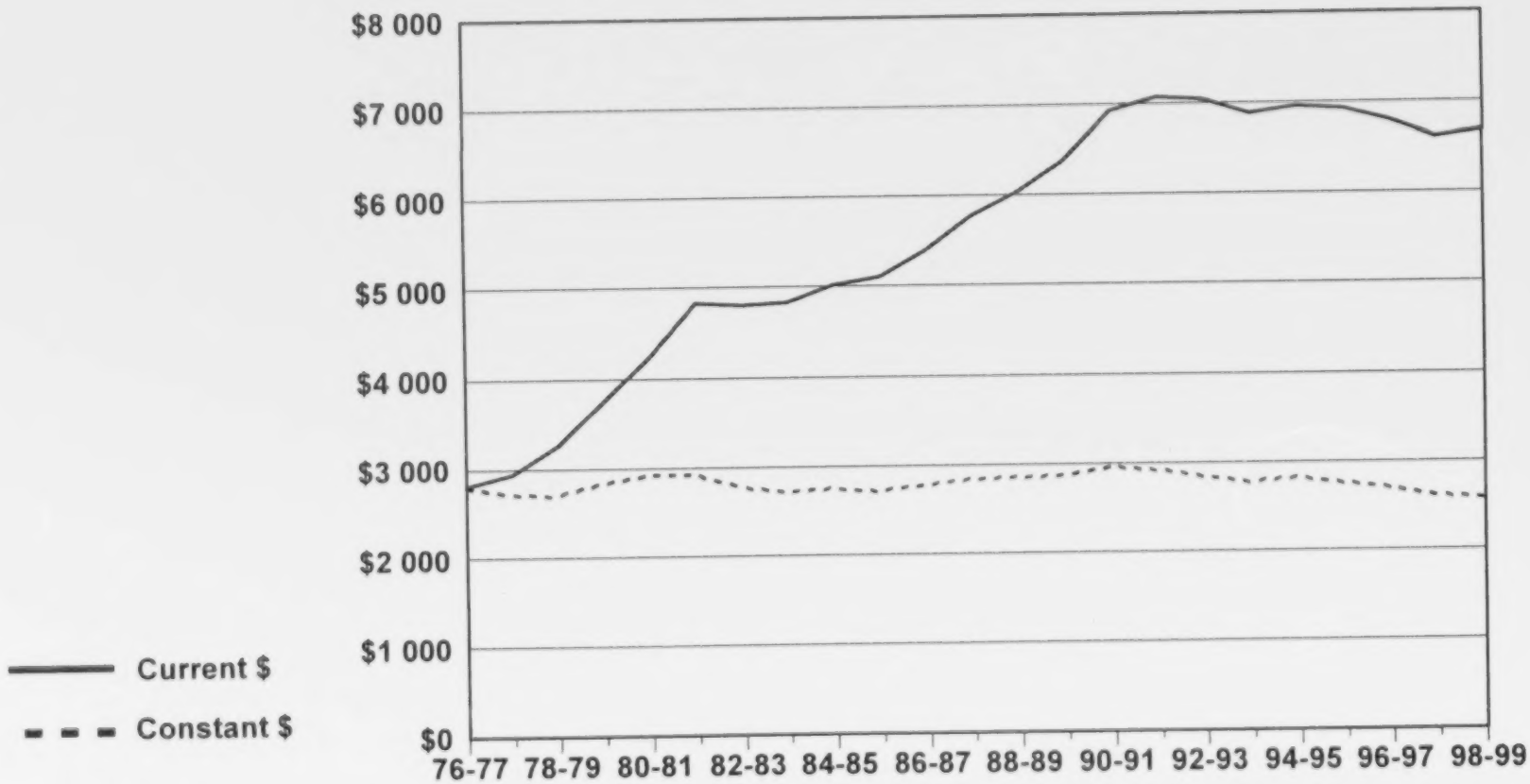
	1976-1977	1981-1982	1989-1990	1993-1994	1997-1998[e]	1998-1999[e]
Total spending in current dollars (in millions of dollars)	298.7	596.0	830.7	1 074.9	1 033.0	1 035.5
Per-student spending in current dollars	2 810	4 831	6 370	6 876	6 614	6 686
Per-student spending in constant 1976-1977 dollars[2]	2 810	2 928	2 869	2 786	2 618	2 598

e: Estimates

1. Operating expenses exclude debt service (long-term and current liabilities) and capital expenses financed directly from current revenues.
2. See Note 2 at the bottom of the text.

Graph 1.10

CEGEP spending per student in current dollars and constant 1976-1977 dollars



1.11 Student-Teacher Ratio, Average Teacher Salary and Cost of Teachers per Student in CEGEPs

This section is a complement to Section 1.10, which analyzed the changes in CEGEP spending. Salary costs for teaching personnel accounted for more than half the total of CEGEP spending in 1998-1999, and the changes in these costs were determining factors in the changes in operating expenses.[1] Two factors determine the cost level of teachers per student:[2] the student-teacher ratio and the average salary of teaching personnel in CEGEPs.

In 1998-1999, the average number of students per teacher in CEGEPs was estimated at 13.8 and the average teacher's salary at $50 377. The actual cost of teachers was slightly lower than in 1990-1991.

In 1998-1999, the average number of students per teacher in CEGEPs was estimated at 13.8 and the average teacher's salary at approximately $50 377. The student-teacher ratio is calculated by dividing the number of students by the number of CEGEP teachers,[3] and therefore does not indicate the average number of students per class. To understand the difference between these two ratios, the student-teacher ratio must be considered as a composite indicator that is the result of three variables: the average number of students per class, the average teaching time of teachers and the average learning time of students.

Between 1981 and 1999, the average number of students per teacher in CEGEPs rose from 12.3 to 14.3, while the average salary of teaching personnel increased by 35.7% from $32 595 to $44 217. In comparison, the consumer price index (CPI) increased by 52.9% during this period. The per-student cost of teachers, in current dollars, went from $2 659

1. The salary costs considered in this section do not include employee benefits. If these were included, salary costs for teaching personnel would account for more than 60% of total CEGEP operating expenses.
2. The cost of teachers per student is calculated by dividing the wage bill for teaching personnel by the number of students.
3. Data on enrollments is based on fall registration weighted for the purpose of funding, and teaching personnel is expressed in full-time equivalents.

in 1981-1982 to $3 098 in 1989-1990, that is, an increase of 16.5%, but the cost per student in constant dollars dropped by 13.7%.[4]

In 1989-1990 and 1990-1991, a drop of 5.6% was noted in the student-teacher ratio, and an increase of 5.2% in the average salary of teaching personnel. The cost of teachers per student rose by 11.2% in current dollars, and by 5.9% in constant dollars. The decline in the student-teacher ratio is explained by the addition of new positions as part of a collective agreement. The rise in the number of teachers is related to activities such as departmental committees, practicums, professional development for teachers, and student support services.

Since 1990-1991, the student-teacher ratio has increased, and was estimated at around 13.8 students in 1998-1999. The average salary increased by 8.3% between 1990 and 1998, and stood at $50 377 in 1998-1999. In comparison, the consumer price index (CPI) rose by 16.4% during this period. The cost of teachers per student grew by 6% in current dollars, but dropped by 3.1% in constant dollars between 1990 and 1998.

The labour cost reduction measures mentioned in Section 1.10 contributed to the drop in the actual cost of teachers per student. Of particular note, once again, is the program of voluntary retirement that resulted in a younger average age of teachers. In the battle against budget deficits undertaken by the Québec government, these measures have resulted in the reduction of teaching positions and a drop in the real salary earned by teachers.

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4. The CEGEPs' education price index is used to express spending in constant dollars. This index indicates the changes in the price of goods and services used to provide educational services in CEGEPs. Changes in spending in constant dollars reflect changes in the real funds available to CEGEPs.

Table 1.11

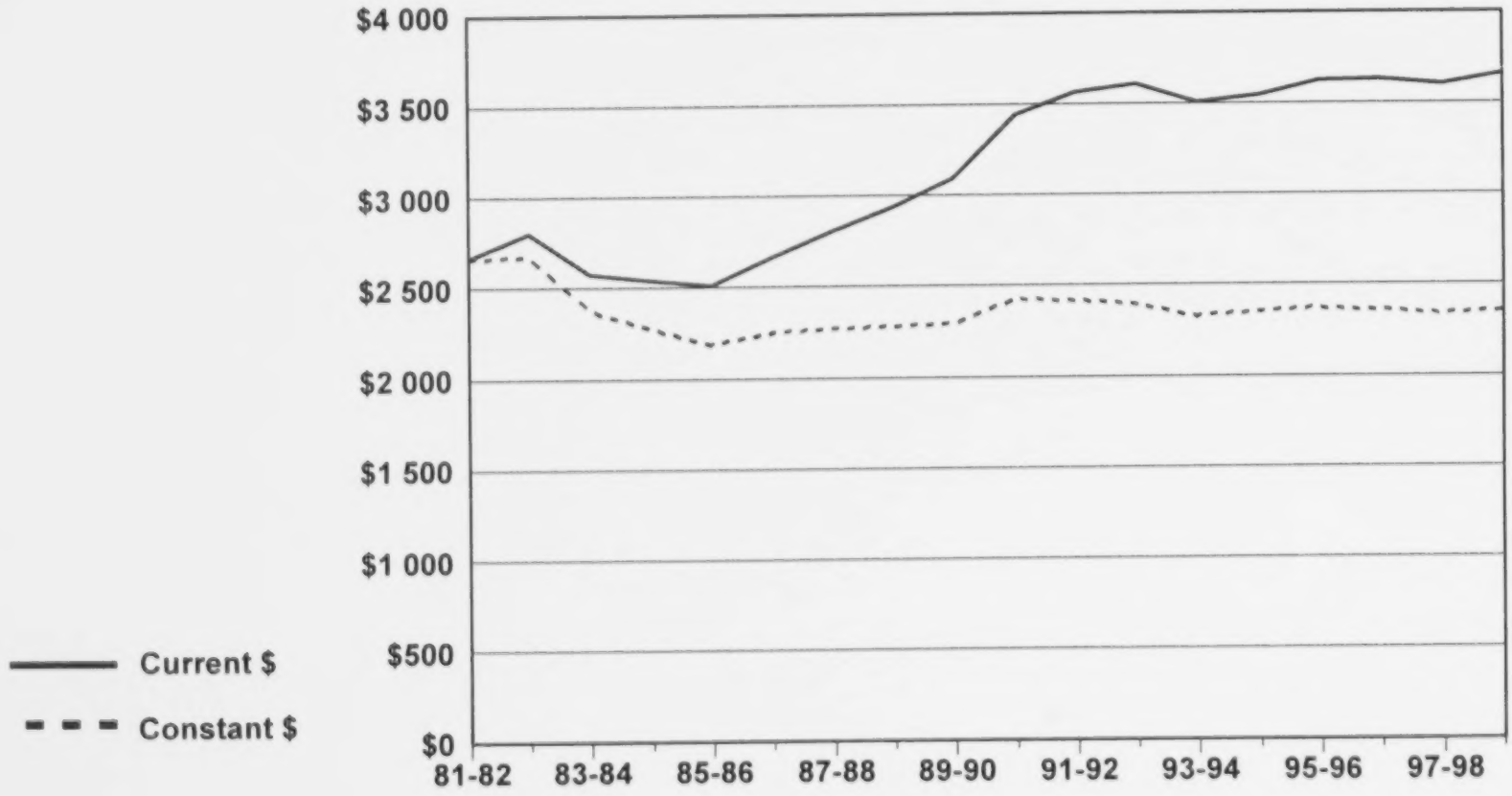
Student-teacher ratio,[1] average salary of teachers and cost of teachers per student in CEGEPs

	1981-1982	1989-1990	1990-1991	1993-1994	1997-1998	1998-1999[e]
Student-teacher ratio	12.3	14.3	13.5	13.9	13.9	13.8
Average salary on current dollars	32 595	44 217	46 512	48 789	50 027	50 377
Cost of teachers per student						
In current dollars	2 659	3 098	3 444	3 503	3 601	3 661
In constant 1981-1982 dollars	2 659	2 295	2 430	2 328	2 343	2 354

e: Estimates
1. See Note 3 at the bottom of the text.

Graph 1.11

Cost of teachers per student in CEGEPs in current dollars and constant 1981-1982 dollars



1.12 Total University Spending in Relation to the GDP

In 1998-1999, the share of the GDP allocated to university education was 1.66% in Québec, compared with 1.35% in the rest of Canada. Higher spending in Québec is primarily explained by a per capita GDP that is lower than in the rest of Canada.

In 1998-1999, Québec allocated 1.66% of its gross domestic product (GDP) to university education,[1] compared with the Atlantic Provinces at 2.08%, Ontario at 1.23%, and Western Canada at 1.36%.[2]

In 1976-1977, the share of the GDP allocated to university education was the same in Québec as in Ontario, but in subsequent years, the financial investment rose in Québec while dropping in Ontario and Western Canada.

Between 1981 and 1989, this share of the GDP was on a slight downward trend in Québec, Ontario and the Atlantic Provinces, while it increased in Western Canada. However, in the early 1990s the share of the GDP allocated to university education increased significantly in Québec, whereas the increase was less marked in the rest of Canada.

The gap between Québec and the rest of Canada therefore widened considerably. Between 1986 and 1993, total spending for university education in Québec increased by 73%, compared with 56% in the rest of Canada. Québec's higher spending is primarily explained by strong growth in research at its universities,[3] but also by a more rapid increase in real funds allocated to education, compared with other regions.

Between 1993 and 1998, the share of the GDP allocated to university education dropped in Québec. It went from 1.98% in 1993-1994 to 1.66% in 1998-1999 as a result of budget cuts and the reduction in labour costs. In the Atlantic Provinces and Ontario, the share of the GDP allocated to university education went down as well, although not as significantly. In Western Canada, it dropped between 1993 and 1997, but this was followed by an increase in 1998-1999.

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1. In 1998-1999, Québec spent an estimated $3.2 billion of its $193.2-billion GDP on university education.
2. The data on universities presented here has not been adjusted to take into account the organizational differences in education systems.
3. See Section 1.16.

In 1998-1999, investment in university education remained higher in Québec than in the rest of Canada (except the Atlantic Provinces), mostly owing to the fact that the collective wealth, as measured by the per capita GDP, was relatively lower in Québec than in the rest of Canada.

Table 1.12

Total spending allocated to university education[1] in relation to the GDP: Québec, other regions of Canada (%)

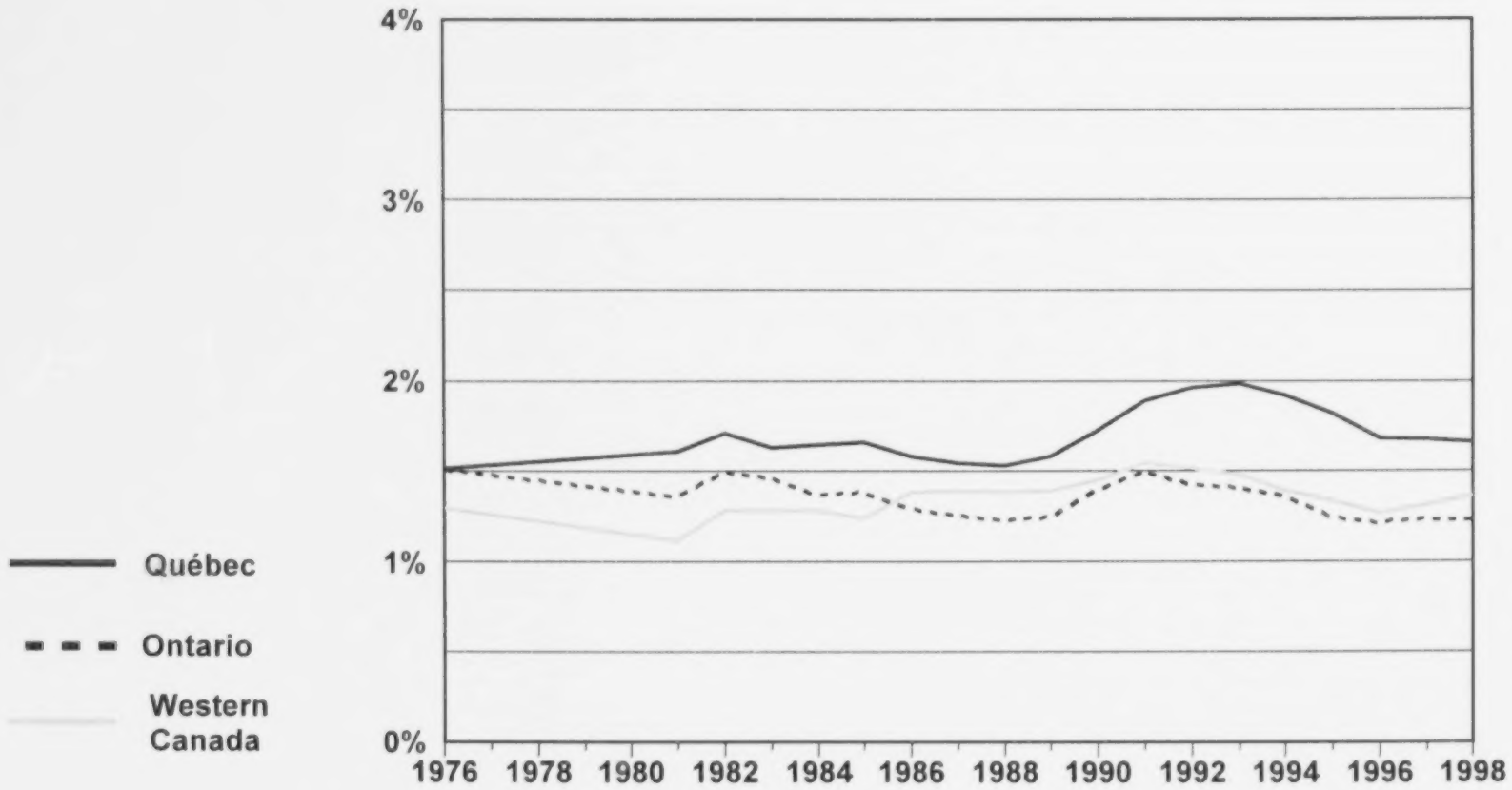
	1976-1977	1981-1982	1989-1990	1993-1994	1997-1998[e]	1998-1999[e]
Québec	**1.51**	**1.61**	**1.58**	**1.98**	**1.67**	**1.66**
Canada, excluding Québec	**1.50**	**1.34**	**1.40**	**1.53**	**1.33**	**1.35**
Atlantic Provinces	2.32	2.36	2.22	2.28	2.13	2.08
Ontario	1.51	1.36	1.25	1.41	1.23	1.23
Western Canada	1.30	1.12	1.39	1.48	1.31	1.36
Canada	**1.50**	**1.40**	**1.44**	**1.63**	**1.40**	**1.41**

e: Estimates

1. These figures include the operating and capital expenses for universities, financial assistance to students, funded and sponsored research at the universities and the Ministère's administrative expenses (the portion attributable to university education). The calculation of the share of the GDP allocated to university education is based on data from Statistics Canada.

Graph 1.12

Total university spending in relation to the GDP: Québec, Ontario and Western Canada (%)



1.13 University Spending per Student[1]

In 1998-1999, spending per student by Québec universities was more or less the same as the average for the rest of Canada. It was higher than in Ontario, but lower than in Western Canada.

In the 1999 edition of the *Education Indicators*, the concept of spending used to calculate university spending per student was based on general operating expenses. A detailed analysis of the financial data of universities per province revealed differences in the accounting of spending in the various funds (especially the operating and capital expense funds). Thus, some of the items capitalized in Québec are recorded as operating expenses in Ontario. For example, Québec universities charge the majority of their purchases of furnishings and equipment to their capital expense fund, while Ontario universities charge many such items to their operating expense fund. Although in principle this should not occur,[2] Statistics Canada has confirmed that there are considerable differences in the accounting practices of Québec universities and universities in other provinces.

To ensure greater comparability of the data, it then becomes necessary to adopt a broader notion of spending. Universities distribute their expenses among five funds, as follows: general operating expenses, trusts and endowments, funded research, capital expenses and ancillary enterprises. The spending considered in Table 1.13a includes the sum of the following funds: general operating expenses, trusts and endowments, and capital expenses, while the spending considered in Table 1.13b corresponds solely to the general operating fund.[3] The data provided in this section is from Table 1.13a.

In 1981-1982, Québec per-student spending was 27% higher than in Ontario, but as a result of salary restrictions and budget cuts imposed on Québec universities in the subsequent years, the gap was greatly reduced and, in 1986-1987,

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1. The data on universities presented here has not been adjusted to take into account the organizational differences in education systems. See Section 1.3.
2. The financial statements of Canadian universities are drawn up according to the principles contained in the manual published by the Canadian Institute of Chartered Accountants (CICA).
3. The calculation of per-student spending is based on data from Statistics Canada. The concept of expenses used here is net expenses. The data in Table 1.13b is slightly different from the data in Table 1.13 in the 1999 edition of the *Education Indicators* because in the latter, the concept of gross expenses was used. Furthermore, the data for the more recent years has been revised.

per-student spending in Québec dropped to 4% lower than Ontario. In 1986-1987, spending per student by Québec universities was also 12% lower than in the Atlantic Provinces and 22% lower than in Western Canada.

Between 1986 and 1993, spending per student rose by 44% in Québec, compared with 25% in Ontario and 28% in Western Canada. During this period, the consumer price index (CPI) increased by 30% in Québec. The sharp increase in Québec per-student spending was made possible because of growth in government subsidies per student, but also owing to the increased revenues from tuition fees.

Between 1993 and 1997, Québec per-student spending rose slightly, then dropped, while in the rest of Canada, the trend was slightly upward. In Québec, the decrease was due to budget cuts, and more specifically, to the reduction in labour costs. The most recent year for which data broken down by expense item is available is 1997-1998. This data indicates that higher per-student spending in Québec compared with Ontario is due not only to Québec's higher capital expenses, but also to the higher cost of teachers and higher administrative expenses in Québec.

In 1998-1999, spending per student by Québec universities was estimated at $14 239, that is, basically the same level of spending as the average for the rest of Canada ($14 037), compared with the Atlantic Provinces at $12 069, Ontario at $12 913, and Western Canada at $16 447.

Table 1.13a

University operating and capital expenses per student: Québec, other regions of Canada (in current dollars)

	1981-1982	1986-1987	1989-1990	1993-1994	1997-1998[e]	1998-1999[e]
Québec	**8 683**	**9 307**	**11 212**	**13 425**	**13 492**	**14 239**
Canada, excluding Québec	**8 104**	**10 541**	**11 786**	**13 039**	**13 796**	**14 037**
Atlantic Provinces	8 287	10 539	11 193	11 475	12 315	12 069
Ontario	6 860	9 663	11 080	12 088	12 413	12 913
Western Canada	10 148	11 918	13 188	15 293	16 456	16 447
Canada	**8 252**	**10 209**	**11 636**	**13 139**	**13 721**	**14 087**

Table 1.13b

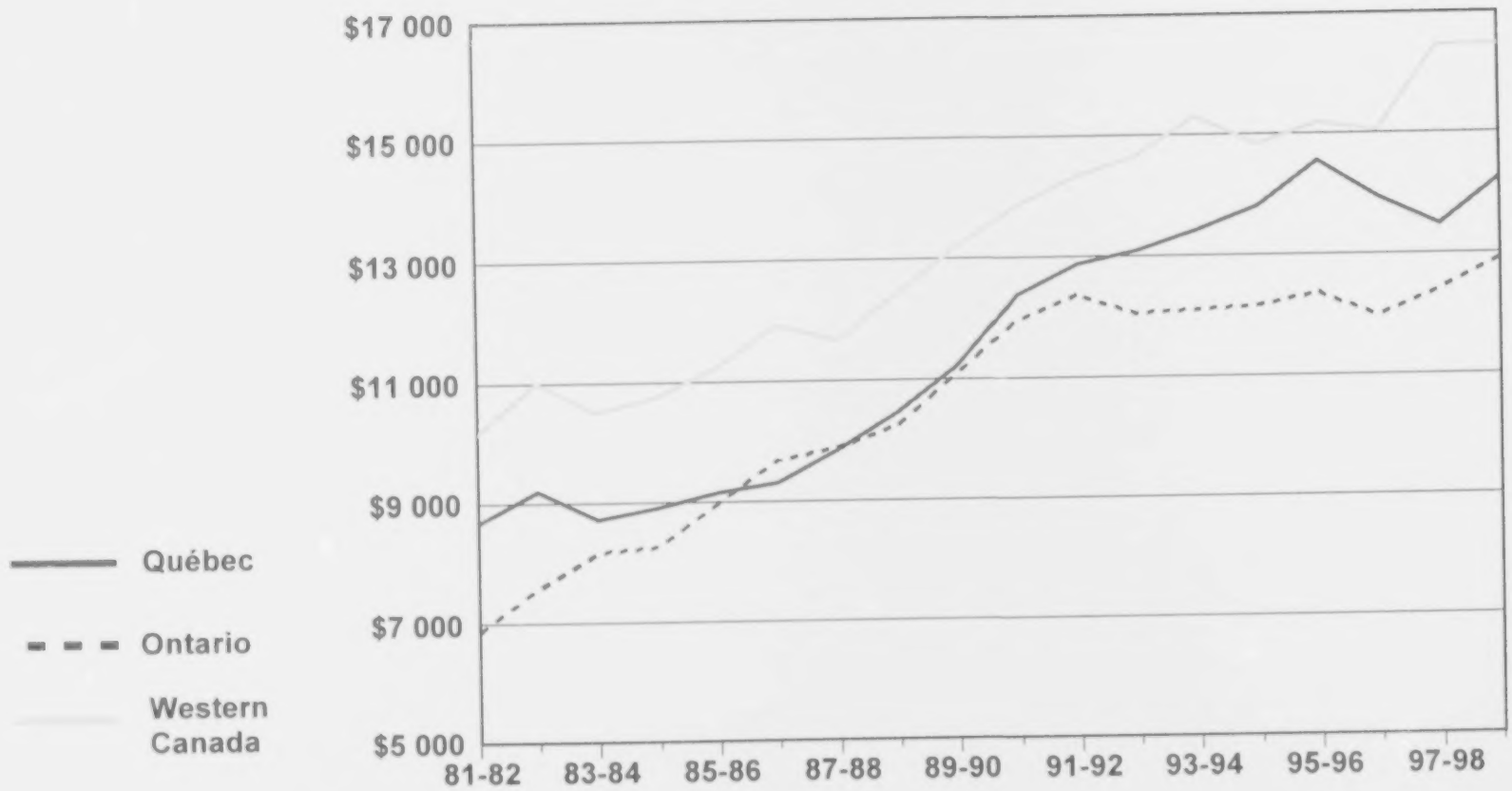
University general operating expenses per student: Québec, other regions of Canada (in current dollars)

	1981-1982	1986-1987	1989-1990	1993-1994	1997-1998[e]	1998-1999[e]
Québec	**7 977**	**8 369**	**9 980**	**11 543**	**11 116**	**11 899**
Canada, excluding Québec	**7 081**	**8 918**	**10 073**	**11 135**	**11 998**	**12 271**
Atlantic Provinces	7 551	8 630	10 024	10 150	11 206	10 958
Ontario	6 400	8 659	9 755	10 752	11 482	11 901
Western Canada	8 054	9 443	10 612	12 199	13 087	13 331
Canada	**7 309**	**8 770**	**10 048**	**11 241**	**11 779**	**12 179**

e: Estimates

Graph 1.13

University spending per student: Québec, Ontario and Western Canada (in current dollars)



1.14 Average Number of Students per Research Professor, Average Salary and Cost of Teachers per Student in Universities

In 1997-1998, the average number of students per research professor was essentially the same in Québec as in the rest of Canada, but the average salary was 4% lower in Québec.

Salary spending for all categories of personnel (including employee benefits) accounts for roughly 80% of university operating expenses in Québec and the rest of Canada. Teachers' salaries are the largest component of payroll expenditure. Table 1.14b contains data on the cost of professors per student, which was essentially the same in Québec ($4 644) as in the Atlantic Provinces ($4 678) in 1997-1998. It was 4% higher than in Ontario ($4 461), but 18% lower than in Western Canada ($5 656).

The wage bill considered in the calculation of per-student spending for professors includes salaries for deans, department heads, research professors and lecturers, as well as amounts paid to all other personnel employed in teaching positions (as defined by Statistics Canada).[1] Table 1.14a shows the data on the average number of students per research professor and the average salary of research professors in 1997-1998, according to region.[2]

In 1997-1998, the average number of students per research professor in Québec (19.6) was higher than in the Atlantic Provinces (17.1) or Western Canada (18.8), but lower than in Ontario (20.8). The average salary of research professors was 11% higher in Québec ($72 648) than in the Atlantic Provinces ($65 682), but 6% lower than in Ontario ($77 290) or Western Canada ($77 121).

It should be noted here that the average number of students per research professor is calculated by dividing the number of students by the number of research professors in universities. The ratio therefore does not indicate the average number of students per class. To understand the difference between these two ratios, the student-teacher ratio must be

1. Employee benefits are not included in the wage bill used for this calculation.
2. This refers to full-time research professors. Lecturers and part-time regular personnel are not included. Furthermore, the calculation of the average number of students per research professor was based on a standard method for counting student enrollment, as follows: part-time enrollments are divided by 3.5 to convert them to full-time equivalents, and are then added to the full-time enrollments. Average salary includes basic salary as well as additional fees paid for administrative functions.

considered as a composite indicator that is the result of several variables, including the average number of students per class, the average teaching time of research professors and the average learning time of students. Unfortunately, there is very little data on the variables that determine the average number of students per research professor and, when the information is available, it is not always recent.

Graph 1.14 provides a comparison of the changes in the average salary of university research professors in Québec, Ontario and Western Canada. It reveals that in 1981 and 1997, the average salary increased less rapidly in Québec than in Ontario or Western Canada. During this period, the average salary of Québec research professors experienced an average annual increase of 3.0%, compared with 4.3% in Ontario and 3.6% in Western Canada. The average inflation rate between 1981 and 1997 was 3.8% in Québec, as was the average for the rest Canada.

The more restrictive salary policies in Québec in the 1980s and 1990s and, more recently, the agreements between the government and unions on the reduction of labour costs explain the slower growth in the average salary of research professors in Québec than in Ontario and Western Canada.

Table 1.14a

Average number of students per research professor and average salary of university research professors: Québec and other regions of Canada, 1997-1998

	Québec	Canada, excluding Québec	Atlantic Provinces	Ontario	Western Canada	Canada
Average number of students per research professor	19.6	19.5	17.1	20.8	18.8	19.5
Average salary of research professors (in dollars)	72 648	75 366	65 682	77 290	77 121	74 696

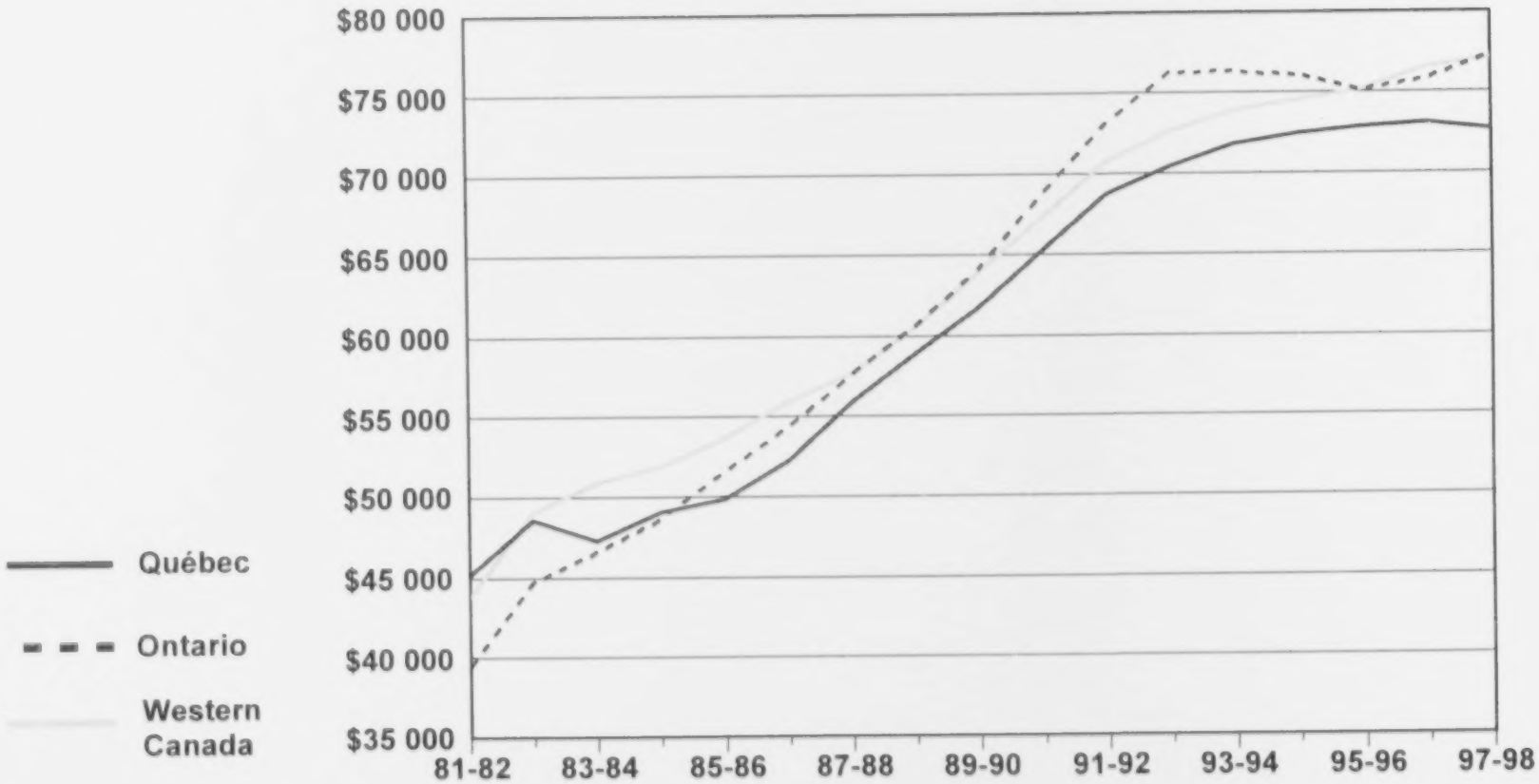
Table 1.14b

Per-student cost of professors in universities: Québec and other regions of Canada, 1997-1998

	Québec	Canada, excluding Québec	Atlantic Provinces	Ontario	Western Canada	Canada
Cost of professors per student (in dollars)	4 644	4 902	4 678	4 461	5 656	4 838

Graph 1.14

Average salary of research professors in universities: Québec, Ontario and Western Canada (current dollars)



1.15 Student Financial Assistance and Tuition Fees

In 1999-2000, tuition fees for university students in Québec were less than half the amount charged in the rest of Canada.

In Québec, financial assistance is available to students in full-time postsecondary education and in secondary-level vocational programs. The loans and bursaries awarded under Québec's Student Financial Assistance Program are intended to supplement the contribution of the student and, where applicable, of his or her parents, sponsor or spouse: responsibility for the cost of education lies with them first and foremost. Government assistance covers the difference between the allowable expenses and the contribution of the student and, where applicable, of his or her parents, sponsor or spouse.

In 1998-1999, of those persons eligible for financial assistance, 23.0% of students in secondary vocational education, 29.5% of college students and 41.5% of university students received assistance. It should be noted that the financial assistance awarded to students in secondary vocational education falls under a program implemented in 1994-1995. A total of 149 750 students benefited from the Student Financial Assistance Program. Of these, 90 700 received only a loan, 58 516 received a loan and a bursary and 534 received only a bursary. Loans totalled $484.6 million and bursaries, $190.0 million.

In 1998-1999, of the university students who received financial assistance, 57.5% obtained only a loan, which averaged $2 898, whereas 42.5% obtained a loan and a bursary totalling an average of $7 430. Those who received a loan and a bursary obtained on average slightly less than half of the assistance in the form of a bursary.

Table 1.15b presents historical data on the breakdown of financial assistance awarded to Québec students attending university. In 1998-1999, loans made up 67.7% of the total assistance awarded and bursaries, 32.3%. In 1984-1985, the corresponding percentages were 53.6% and 46.4%, respectively. This trend towards increasing the portion of assistance that is granted in the form of loans and decreasing the portion given in bursaries has also been observed in the other provinces, in the United States and elsewhere in the world.

In 1998-1999, upon completion of their undergraduate studies, Québec students who had received loans owed an average of $12 284. The average debt for graduate studies was $15 568 and for postgraduate studies, $19 153.

Student loans contracted for college and undergraduate studies averaged $15 552 in 1998-1999; for college through to graduate studies, $22 378; and for college to postgraduate studies, $27 115.

Although these debt levels are relatively high, they are lower in Québec than elsewhere in Canada. This is partly explained by the fact that, on average, Québec awards more bursaries than the other provinces and that tuition fees in Québec universities are the lowest in Canada.

In fact, tuition fees in Québec universities are approximately half of what they are elsewhere in Canada, having remained frozen for a number of years. Although there were major increases at the beginning of the 1990s, tuition fees have remained at approximately the same level in Québec since 1993-1994, whereas they have continued to climb in the other regions of Canada. The gap between Québec and the rest of Canada has once again begun to widen, and in 1999-2000, tuition fees in the rest of Canada ($3 727) were slightly more than double what they were in Québec ($1 690).

Table 1.15a

Average tuition fees for full-time undergraduate university students: Québec and other regions of Canada (in current dollars)

	1989-1990	1990-1991	1991-1992	1993-1994	1998-1999	1999-2000[p]
Québec	**581**	**948**	**1 350**	**1 630**	**1 690[1]**	**1 690**
Canada, excluding Québec	**1 541**	**1 662**	**1 852**	**2 202**	**3 449**	**3 727**
Atlantic Provinces	1 689	1 802	2 023	2 446	3 597	3 773
Ontario	1 561	1 684	1 819	2 076	3 667	4 049
Western Canada	1 440	1 562	1 828	2 298	3 071	3 165

Table 1.15b

Proportion of financial assistance awarded to Québec university students in the form of loans and bursaries (%)

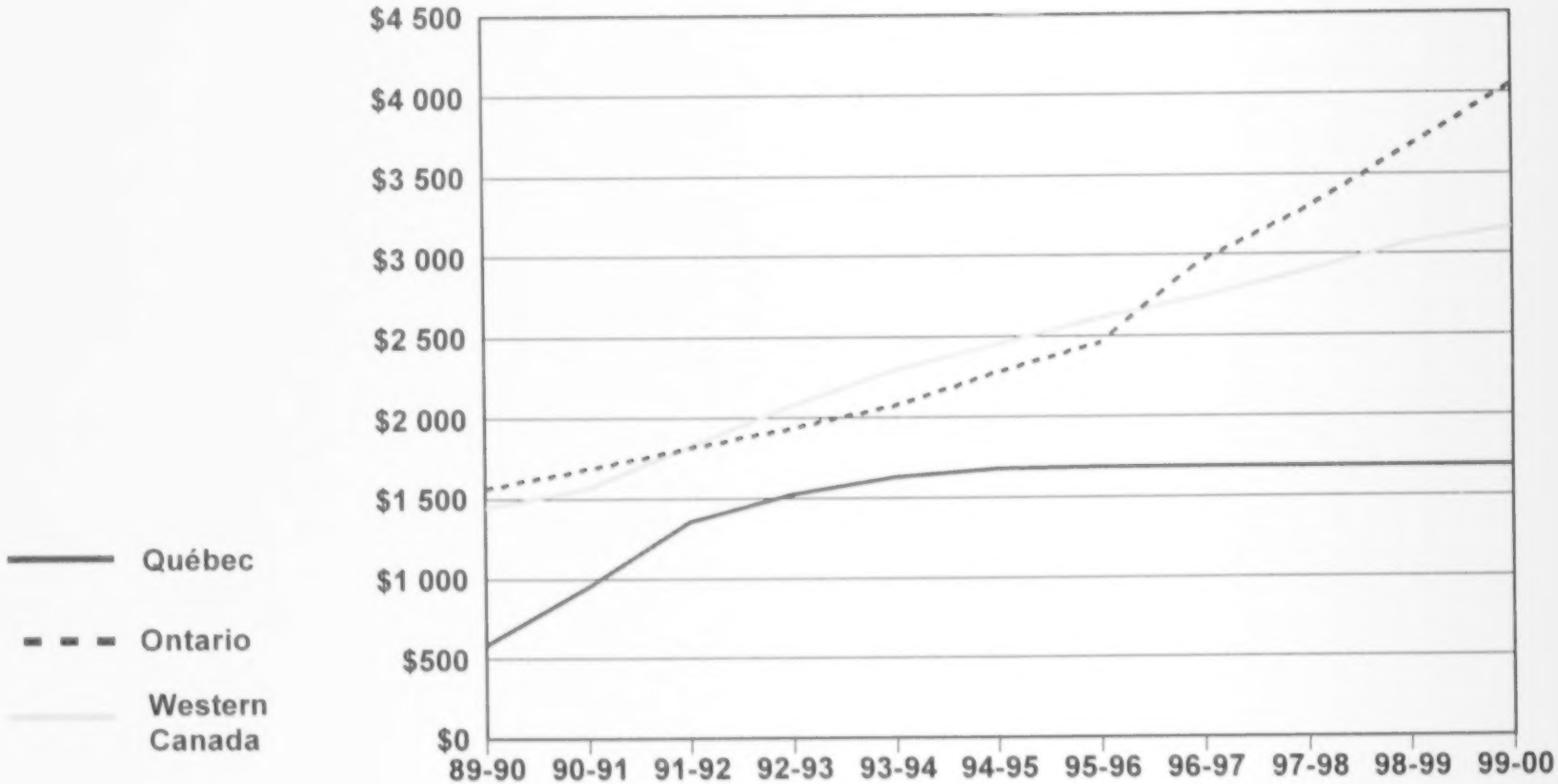
	1984-1985	1989-1990	1991-1992	1993-1994	1997-1998	1998-1999
Loans	53.6	64.5	60.5	63.0	66.9	67.7
Bursaries	46.4	35.5	39.5	37.0	33.1	32.3

p: Preliminary figures

1. In Québec, as of the fall of 1997, Canadian students not residing in Québec must pay an additional amount that has not been taken into account in the calculation of the average tuition fee.

Graph 1.15

Average tuition fees for full-time undergraduate university students: Québec, Ontario and Western Canada (in current dollars)



1.16 Funded and Sponsored Research in Universities

The amount of funding through grants and research contracts allocated to universities has increased significantly, rising from $259.7 million in 1986-1987 to $605.2 million in 1997-1998. This represents an average annual increase of 8.0%. Funding per research professor rose from $32 794 to $74 308, for an average annual increase of 7.7%. In comparison, the consumer price index (CPI) rose at an average rate of 2.8% per year.

In the period between 1986-1987 and 1992-1993, the funding allocated to university research increased sharply, but dropped from 1992-1993 to 1994-1995, and finally stabilized from 1994-1995 to 1997-1998.

This increase in the amounts allocated to university research is the result of the trend in grants and research contracts over three distinct periods: first the period between 1986-1987 and 1992-1993, during which university research funding increased an average of 16.7% per year; then from 1992-1993 to 1994-1995, where it dropped by an average of 5.4% per year; and finally 1994-1995 to 1997-1998, in which it stabilized, with an average yearly increase of only 1.0%.

During this last period, from 1994-1995 to 1997-1998, the contribution of the Canadian government declined by 3.3% per year on average, while the contribution of the Québec government was relatively stable (with an average yearly increase of 0.2%). During this time, contributions from the private sector rose by 7.4% per year on average, and those from other sources by 3.3% per year.

In 1997-1998, the contribution from the Canadian government constituted 35.0% of grants and research contracts allocated to universities. The share from the Québec government was 23.5%, from the Canadian private sector 27.1%, and from other sources 14.4%. However, the direct contribution of governments does not take into account the cost of tax incentives for encouraging industry to have its research done by university research departments.

In 1997-1998, 79.6% of grants and research contracts were awarded in the fields of health sciences (37.8%), pure sciences (24.6%) and applied sciences (17.2%). Next came social sciences (7.3%), business administration (2.5%) and education (1.6%).

Health sciences received 40.3% of its grants and research contracts from the private sector and 26.2% from the Canadian government. The federal government also funded 50.1% of the research in pure sciences and 45.5% in applied sciences.

Research in education grew an average of 11% per year from 1989-1990 to 1994-1995, going from $9 million to $15.1 million. It dropped to $8.8 million in 1995-1996, rose to $11.2 million in 1996-1997 and dropped again in 1997-1998 to $9.9 million.

In 1980, Québec universities received 21.4% of the funding allocated by the three main federal research councils.[1] In 1997, this figure rose to 27.3%. The latter percentage is higher than the ratio of the Québec population to Canada as a whole (approximately 25%).

1. These are the Medical Research Council of Canada (MRC), the National Sciences and Engineering Research Council (NSERC) and the Social Sciences and Humanities Research Council of Canada (SSHRCC).

Table 1.16

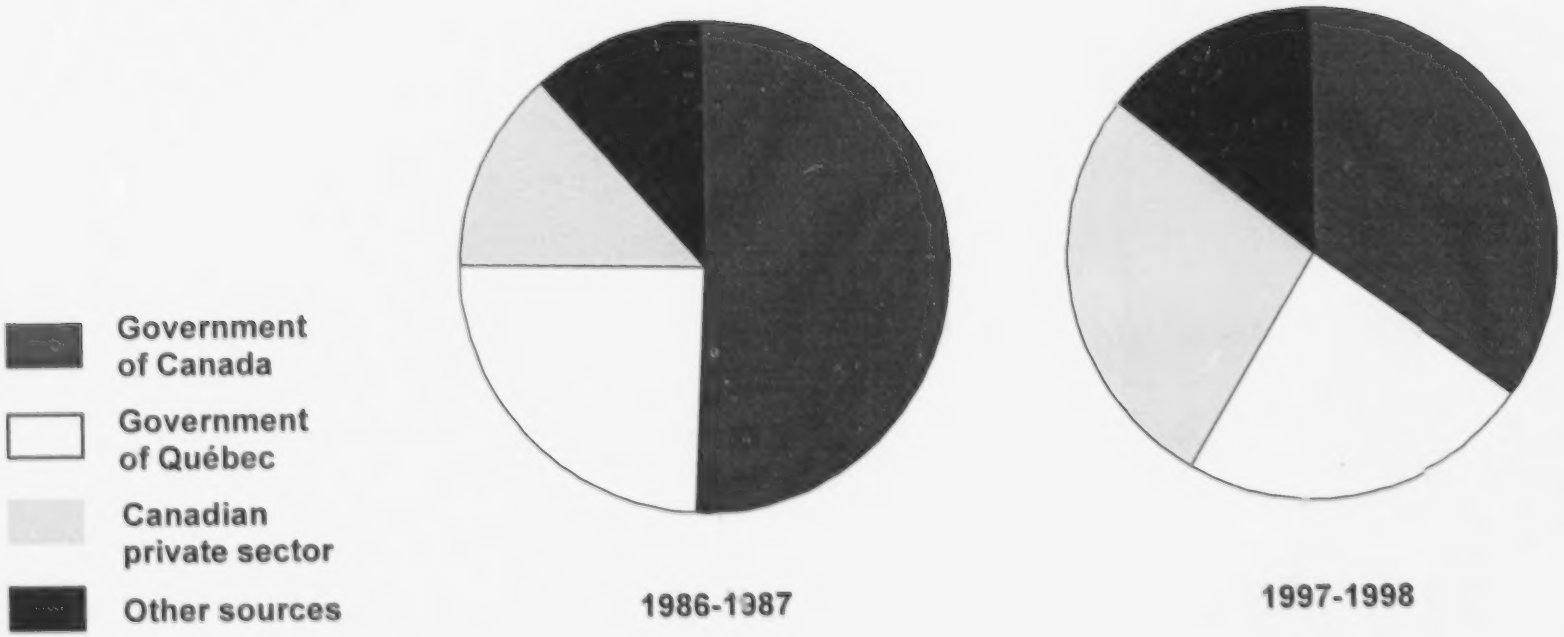
Funded and sponsored research according to source of funding and per research professor

	1986-1987	1990-1991	1992-1993	1993-1994	1995-1996	1996-1997	1997-1998
Grants and research contracts (in millions of dollars),[1] by source							
Government of Canada	132.0	202.8	229.0	226.3	227.5	225.7	211.6
Government of Québec	63.4	106.4	125.7	132.9	142.8	142.0	142.5
Canadian private sector	34.8	90.3	234.4	199.6	140.2	157.1	163.8
Other sources	29.5	56.7	65.9	74.1	77.1	81.5	87.3
Total	259.7	456.2	655.0	632.9	587.6	606.3	605.2
Number of research professors[2]	**7 919**	**8 531**	**8 860**	**8 954**	**8 919**	**8 705**	**8 144**
Amount per research professor (in dollars)	**32 794**	**53 478**	**73 924**	**70 678**	**65 877**	**69 645**	**74 308**

1. This refers to all research receiving direct assistance (grants, contracts, commissions, etc.) from either the university itself or outside organizations. Included are research projects which are conducted under the supervision of university research professors and for which funds have been put into specific accounts managed by the financial services or accounting department of the university or of a hospital or university-affiliated centre (as defined by the Système d'information sur la recherche universitaire [SIRU]).
2. This refers to career professors who occupy permanent positions in Québec universities, regardless of whether they are currently involved full-time in teaching-related activities or on sabbatical or career development leave. They may also assume certain administrative tasks. For example, department heads, deans and assistant deans often continue to be active in teaching or research. However, our definition of research professor excludes administrators of services (library director, registrar, etc.) and senior administrators (rectors and vice-rectors) (source: Ministère de l'Éducation and Conference of Rectors and Principals of Quebec Universities, *Enquête sur le personnel enseignant)*.

Graph 1.16

Distribution of grants and research contracts, by source of funding



2.1 School Life Expectancy

A child who began elementary school in 1998-1999 can expect to spend 15.4 years in the education system.[1] Since 1988-1989, 0.8 years of schooling have been added for male students, and 1.0 years for female students. School life expectancy has not improved from the 15.7 years observed in 1993-1994. In 1997-1998, the value observed (15.4 years) was lower by 0.2 years than the school life expectancy observed in France[2] for the same period.

From elementary to university education, in 1998-1999, school-aged Quebeckers could expect to stay in school for an average of 15.4 years.

A breakdown by level of education reveals that all increases in the last 10 years are attributable to either adult education or postsecondary education. More than half of the additional schooling is a result of college and university studies. At the elementary and secondary levels, schooling rose by 0.38 years, resulting from an increase of 0.55 years in the adult sector and a drop of 0.17 years in the youth sector.

For elementary and secondary school, the actual durations of schooling more or less correspond to the projected length of studies. This is not surprising given that enrollment in these levels of education is virtually universal and compulsory until almost the end of secondary school. The reason that the average duration of schooling is less than the length of programs at the college and university levels is primarily because not all students go on to postsecondary education.

School life expectancy does not necessarily correspond to the number of years of study begun and successfully completed because grades repeated are included in the average duration. The very slight decline since 1992-1993 in the duration of schooling at the elementary and secondary levels can be explained simply by the decrease in the number of years that are repeated (see Section 2.9). At the elementary and secondary levels, male students attend school slightly

1. Technically, school life expectancy for a school year is equal to the sum of the schooling rates (or school attendance rates) for full-time studies (or the equivalent) per year of age. A schooling rate is equivalent to the average number of years of schooling per person. The sum of the rates per age indicates the hypothetical duration of studies for a child who begins elementary school and who, throughout his or her progression through school, is in the schooling situation observed for a given year at various ages.
2. Ministère de l'Éducation nationale, de l'Enseignement supérieur et de la Recherche et de la Technologie, Direction de la programmation et du développement, *L'état de l'École*, Paris, Vol. 9, October 1999.

longer than female students (12.0 and 11.8 years, respectively) precisely because they have more difficulty. At the college and university levels, women tend to stay in school longer because more of them enroll in postsecondary education than men (see Sections 2.10 and 2.12). Women attend postsecondary school for an average of 4 years, compared to 3 years for men.

Table 2.1

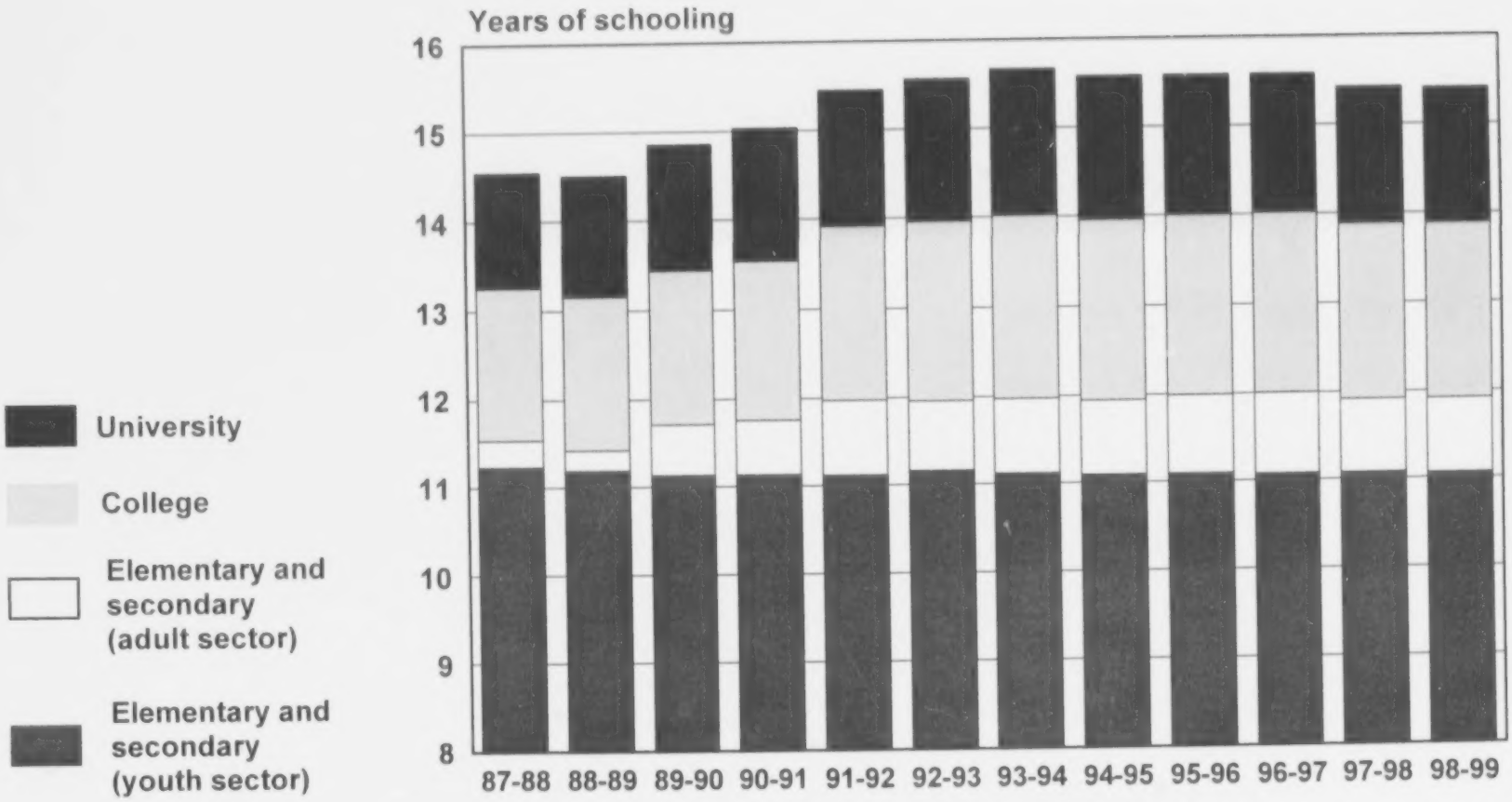
School life expectancy for a child entering elementary school, by gender and level of education (in years)

	1987-1988	1988-1989	1993-1994	1996-1997	1997-1998	1998-1999
All levels of education by gender						
Male	N/A	14.2	15.4	15.2	15.1	15.0
Female	N/A	14.8	16.0	15.9	15.8	15.8
Total	**14.5**	**14.5**	**15.7**	**15.6**	**15.4**	**15.4**
Both according to level of education						
Elementary (youth sector)	6.14	6.16	6.12	6.08	6.07	6.06
Secondary (youth sector)	5.09	5.03	5.01	4.99	5.00	5.00
Elementary and secondary (adult sector)	0.30	0.23	0.84	0.92	0.84	0.85
College	1.74	1.74	2.06	2.02	1.98	1.97
University	1.28	1.34	1.64	1.56	1.52	1.52

N/A: Data not available

Graph 2.1

School life expectancy for a child entering elementary school (in years)



2.2 Access to New Information and Communications Technologies–Youth and Adult Sectors

In the spring of 1999, the objective of 10 students per computer equipped with the latest technologies was achieved in secondary schools.

On June 26, 1996, the Québec Minister of Education presented the Ministère's five-year action plan to support the integration of information and communications technologies (ICT) in schools. Schools and adult education centres were asked to develop a plan for the integration of technologies according to the needs of students and teachers, as well as the objectives and the methods favoured. These annual plans were to comply with specific fund allocation measure "50590–Acquisition d'équipement informatique pour la formation générale des jeunes et des adultes," which finances the program for the purchase of equipment covered by the five-year ICT plan for schools. The Ministère subsidizes 70% of the cost of such equipment acquired by school boards.

The principal objectives of the ICT action plan, for general education in both the youth and the adult sectors, are to attain a maximum ratio of 10 students per ICT workstation equipped with the latest technologies in each school and adult education centre by the end of the 2000-2001 school year, as well as a maximum ratio of 10 teachers per ICT workstation. Initially projected for 2001, the connection of all schools to the Internet was achieved in June 1999.

The purchase of workstations for students and Internet connection are the two most widespread initiatives in school boards for each of the first two years of the action plan's implementation. Almost all participating school boards reported the purchase of workstations for students, and a little more than three quarters of them mentioned Internet connection. More than 69.3% of the schools purchased workstations in 1996-1997 and 76.5%, in 1997-1998. Internet connections were set up for the youth sector (general education) in 55.3% of the schools in 1996-1997, and 60.5% in 1997-1998. Thus, in June 1997, 58.8% of the schools used for general education in the youth sector were connected to the Internet, and by June 1998, the percentage was more than 81.0%.

In the first two years of the plan, the average number of students per workstation dropped from 13 to 10 for general education in the youth sector. The average number of students per ICT workstation also improved, going from 23 to 16,

and the ratio of students to Internet workstations went from 101 in 1996-1997 to 29 in 1997-1998. These ratios indicate significant progress towards attaining the Ministère's objective.

A more recent survey was also conducted in schools by the Ministère's Direction des ressources didactiques in the spring of 1999. Results indicate that, as of June 1, 1999, the number of students per ICT workstation was 11, that is, 12 at the elementary level and 10 at the secondary level, and that the number of students per Internet workstation was 18 at the elementary level and 13 at the secondary level.

For general education in the youth and adult sectors together, $59.6 million was invested in 1996-1997 and $73.1 million in 1997-1998. Most school board spending was used to purchase workstations, which represents two thirds of the total spending allowed for each of the first two years of the plan.

Table 2.2

Summary of the introduction of information and communications technologies (ICT) for general education in the youth sector

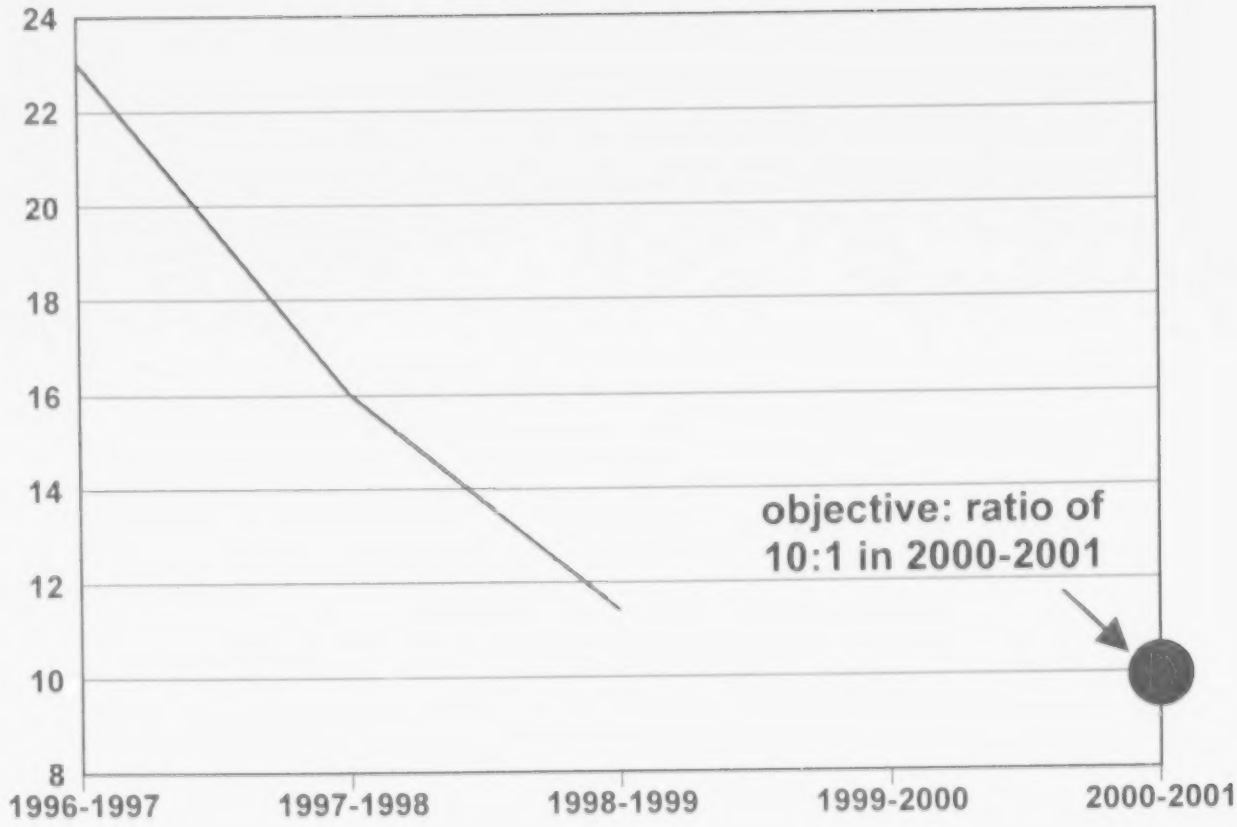
Student/workstation ratio	General education in the youth sector		
	1996-1997	**1997-1998**	**1998-1999**
Students per workstation	13	10	8
Students per ICT workstation[1]	23	16	11
Students per Internet workstation	101	29	16
Spending allowed under measure 50590 (youth and adult sectors)			
Total financial investment ($M)	59.6	73.1	N/A
Spending for the purchase of workstations[2] ($M)	40.2	49.3	N/A

N/A: Data not available

1. "ICT workstations" are defined as personal computers (PCs) or clones equipped with 486 processors or higher, colour MacIntosh units, Power PCs or terminals.
2. This amount is included in the total outlay.

Graph 2.2

Number of students per computer terminal (ICT)



2.3 Enrollment in Preschool Education

Enrollment in kindergarten for 5-year-olds[1] has varied between 97% and 99% for a number of years. There is no difference between the enrollment of boys and girls in either kindergarten for 5-year-olds or kindergarten for 4-year-olds. In the past, enrollment in kindergarten for 4-year-olds varied between 6% and 9%. It has been significantly higher since 1994-1995 because children in *Passe-partout* play groups are now included, and it stood at 16.6% in 1999-2000.

In 1999-2000, 97.3% of all eligible children attended kindergarten for 5-year-olds, almost all of them on a full-time basis.

For a long time, children in part-time kindergarten[2] accounted for approximately 87% of all students in kindergarten for 5-year-olds, and this rate was the same for boys as for girls. In 1997-1998, with the kindergarten reform, the situation was completely reversed as almost all boys and girls in kindergarten for 5-year-olds started to attend on a full-time basis.

Students with handicaps or learning or adjustment difficulties account for approximately 2% of enrollment in kindergarten for 5-year-olds.[3] There are marked differences between boys and girls. Approximately 1.4% of girls have handicaps or learning or adjustment difficulties, compared with twice as many boys (2.8%). Graph 2.3 shows the breakdown of students according to categories of difficulty, by gender. For example, out of 100 boys with handicaps or learning or adjustment difficulties in kindergarten for 5-year-olds, 26 have severe behavioural disorders; for girls, this number is 13.

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1. This refers to the number of children enrolled in kindergarten for 5-year-olds (regardless of their age) in proportion to the population of 5-year-olds, or 4-year-olds in the case of kindergarten for 4-year-olds. Very few children who are not 5 years of age on September 30 are enrolled in kindergarten for 5-year-olds, and even fewer children in kindergarten for 4-year-olds are not 4 years of age. Variations in the estimates of the population aged 4 or 5 may affect the calculation of these rates, probably more so than any other factor.
2. In kindergarten for 5-year-olds, part-time attendance means five half-days per week and full-time attendance five full days per week. In kindergarten for 4-year-olds, part-time attendance means one to four half-days per week and full-time attendance means five half-days per week.
3. This analysis uses data from 1998-1999, the most recent data available.

Table 2.3

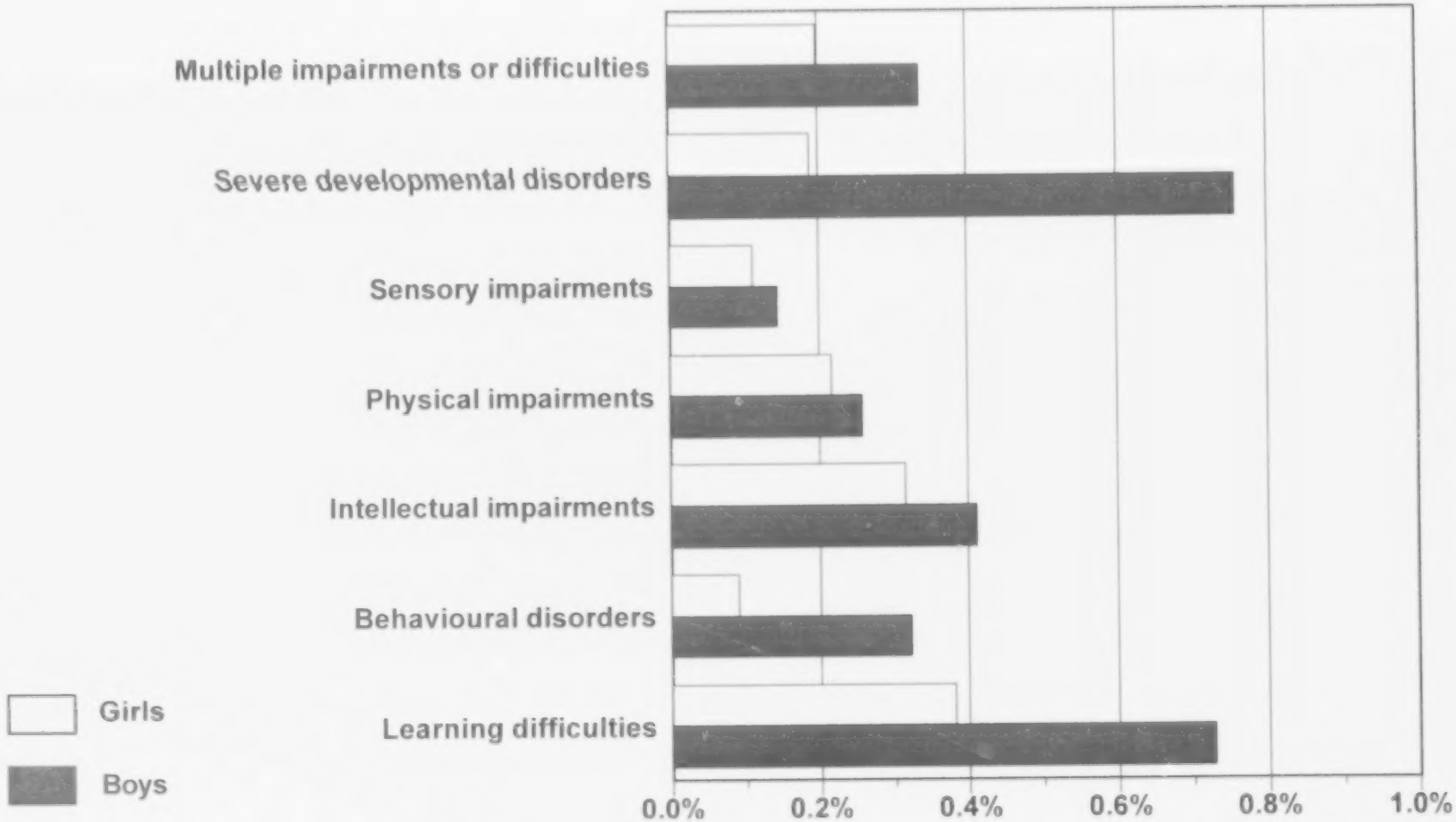
Proportion of children enrolled in kindergarten for 4-year-olds and for 5-year-olds (%)

	1981-1982	1991-1992	1996-1997	1997-1998	1998-1999	1999-2000[e]
Kindergarten for 4-year-olds	**7.4**	**8.8**	**17.8**	**17.4**	**17.6**	**16.6**
Passe-partout play groups	N/A	N/A	8.4	8.5	8.4	7.6
Other categories	7.4	8.8	9.4	8.9	9.1	9.0
Kindergarten for 5-year-olds	**97.3**	**97.3**	**97.1**	**98.3**	**97.8**	**97.3**
Full-time[1]	—	—	10.2	97.7	97.1	97.3
Part-time[2]	—	—	86.9	0.6	0.6	0.1

N/A: Data not available
—: Not applicable
e: Estimates
1. Full-time: five full days
2. Part-time: five half-days

Graph 2.3

Distribution by category of difficulty in kindergarten for 5-year-olds, by gender: 1998-1999 (%)



2.4 Enrollment in Secondary IV and V, General Education–Youth Sector

In 1998-1999, in general education in the youth sector, enrollment in Secondary V was 76.6%. With the exception of 1995-1996, this is the highest rate ever observed.

Enrollment in Secondary V stood at 76.6% in 1998-1999, and has been climbing steadily since 1996-1997. With a rate of 86.1%, enrollment in Secondary IV has been on the rise in recent years, almost reaching the all-time high of 86.3% recorded in 1994-1995. But in both cases, the 1998-1999 enrollment rate is the second-highest ever observed.

From a more historical perspective, Graph 2.4 shows that enrollment in Secondary IV and V increased appreciably in the 1980s. This trend can be explained by the fact that admission to vocational education was delayed to ensure that students spent an extra year in general education. On the other hand, the drop observed in 1985-1986 (in Secondary IV) and in 1986-1987 (in Secondary V) was due to the raising of the pass mark.[1] There was a temporary decline in student retention, but it was not long before an upward trend took hold once again.

For the past several years, virtually all young Quebeckers have enrolled[2] in Secondary I, that is, 98% in 1998-1999. In that year, 95% entered Secondary II and 93% enrolled in Secondary III. Figures in recent years have been relatively stable, even though enrollment in Secondary III is the highest ever observed. Obviously, the higher the enrollment at the beginning of secondary school for a given generation, the more likely this generation is to have higher enrollment rates in Secondary IV and V, and therefore better graduation rates.

Differences in enrollment between female and male students appear in Secondary III, where female students are ahead of the male students by 3 percentage points. The gap widens in Secondary IV to 7 percentage points in favour of the female students, and to more than 11 percentage points in Secondary V.

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1. The new higher pass mark was applied to students entering secondary school in 1982-1983.
2. Some young people are not educated in the official education system. They may receive their schooling in reception centres, in schools that are not legally recognized or at home.

Table 2.4

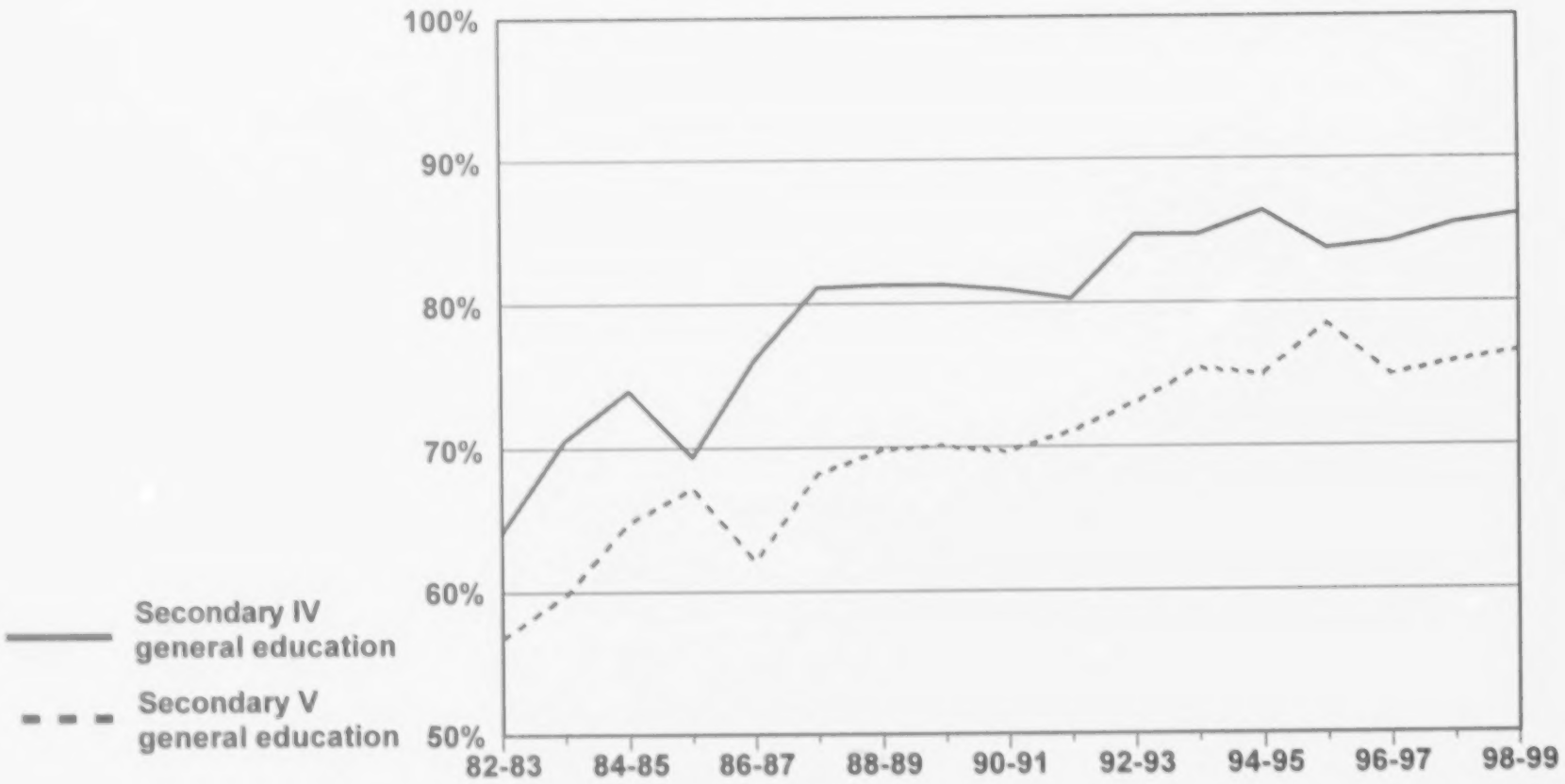
Proportion of young people enrolling in Secondary IV and V in general education in the public and private systems, by gender (%)

	1982-1983	1992-1993	1995-1996	1996-1997	1997-1998	1998-1999
Secondary IV						
Male	59.9	81.6	80.4	80.6	81.9	82.8
Female	68.6	87.9	87.1	88.0	89.0	89.6
Total	64.1	84.7	83.7	84.2	85.4	86.1
Secondary V						
Male	53.6	68.4	73.8	69.9	70.3	70.9
Female	60.0	78.2	83.5	80.5	81.8	82.5
Total	56.7	73.1	78.5	75.0	75.9	76.6

Note: Students enrolled in vocational education are not included.

Graph 2.4

Proportion of young people enrolling in Secondary IV and V in general education in the public and private systems (%)



2.5 Enrollment in Secondary Vocational Education–Youth and Adult Sectors

The proportion of students under the age of 20 enrolling in vocational education programs was 16.1% in 1998-1999. This is a slight drop from the rate observed in 1997-1998 (16.9%). Since 1984-1985, enrollment of students already holding a Secondary School Diploma (SSD) has been rising almost steadily, reaching 10.9% in 1996-1997, but dropping back to 9.8% in 1998-1999.

In 1998-1999, 16.1% of young people under the age of 20 enrolled in vocational education, 61% of whom already held an SSD.

As short vocational programs were phased out, most students who would normally have opted for these programs in the past are now enrolled in individualized paths for learning or, more likely still, in work skills and life skills education programs, which are a part of general education. Enrollment of students without diplomas was 6.3% in 1998-1999 and represented only 39% of all people under the age of 20 enrolling in a vocational program. This situation has been relatively stable in the last few years.

Vocational programs attract more male students than female. Thus, in 1998-1999, 19.0% of male students opted for this path, compared with 13.1% of female students. This situation applies equally to students who had a diploma and to those who did not. This is the opposite of what has been occurring in general education in the youth sector (see Section 2.4), where female students tend to stay in school longer. Male students, who are more likely to enroll in vocational education programs than female students, more often leave general education and the youth sector.

Table 2.5

Enrollment in vocational education of students under the age of 20, youth and adult sectors combined (%)

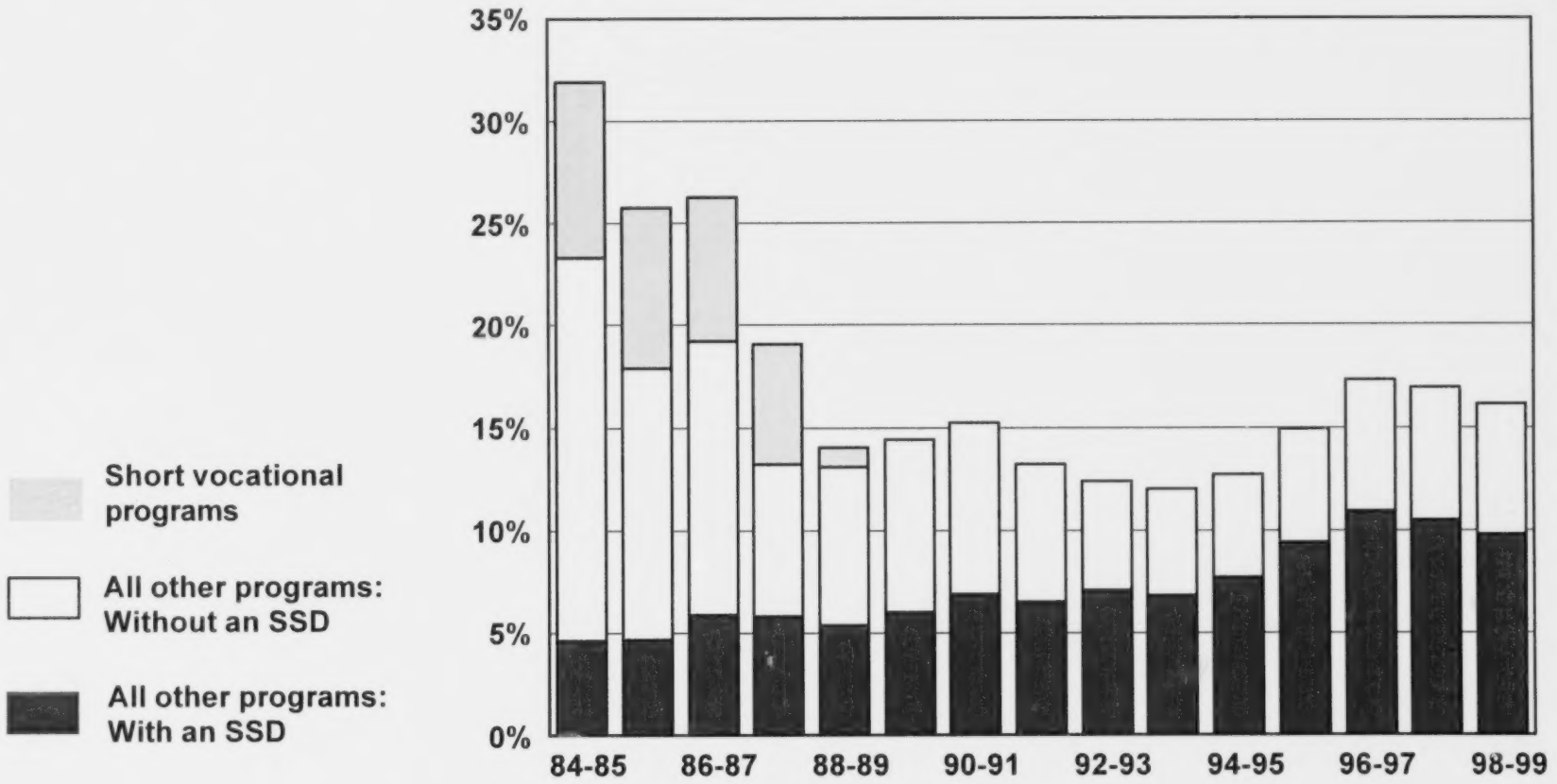
	1984-1985	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999
MALE						
Short vocational programs[1]	11.9	–	–	–	–	–
All other programs	**21.8**	**15.0**	**17.4**	**20.5**	**19.7**	**19.0**
Without an SSD	18.2	6.6	7.2	8.7	8.4	8.5
With an SSD	3.6	8.4	10.2	11.8	11.3	10.5
FEMALE						
Short vocational programs[1]	5.2	–	–	–	–	–
All other programs	**24.8**	**10.4**	**12.2**	**13.8**	**14.0**	**13.1**
Without an SSD	19.1	3.4	3.7	4.0	4.3	4.0
With an SSD	5.7	7.0	8.5	9.8	9.7	9.1
TOTAL						
Short vocational programs[1]	8.6	–	–	–	–	–
All other programs	**23.3**	**12.8**	**14.8**	**17.3**	**16.9**	**16.1**
Without an SSD	18.7	5.0	5.5	6.4	6.4	6.3
With an SSD	4.6	7.7	9.4	10.9	10.5	9.8

–: Not applicable

1. Most young students who enroll in short vocational programs do not have a diploma.

Graph 2.5

Enrollment in vocational education of students under the age of 20, youth and adult sectors combined (%)



2.6 Enrollment in Secondary General Education–Adult Sector

Students who do not obtain a secondary school diploma in the youth sector are not all dropouts. Many of them choose to pursue their studies in the adult sector.

In 1998-1999, 11.4% of students under the age of 20 transferred directly from the youth sector to the adult sector.

In 1998-1999, 11.4% of a school-aged generation under the age of 20 went directly from the youth sector to the adult sector in general education without interrupting their studies. In 1984-1985, such students accounted for only 1.3%; there has therefore been a ninefold increase. In view of this, the relatively low rate of 5.0% observed in 1992-1993 can be attributed to the changes made in the funding of educational activities for adult students in general education; at the time, this funding was part of a restricted envelope.[1] The increase observed in 1993-1994 (9%) was surely due in part to the fact that the envelope was once again opened for students 16 to 18 years of age.

An analysis of the proportion of students who, after interrupting their studies, return to school in general education in the adult sector reveals that the number of students aged 15 to 19 who returned to the adult sector was higher–until 1986-1987–than the number of students who transferred directly from the youth sector. Since then, however, the latter path has grown in popularity, and in 1998-1999, accounted for three quarters of all new enrollments of students under the age of 20.

The adult sector does not limit its services to providing students leaving the youth sector with the opportunity to earn their diploma. Adult education is also open to those who already have a secondary school diploma but wish to add to their education. Of those students without a diploma who enroll in the adult sector, some simply wish to meet a short-term need, such as acquiring the knowledge or skills taught in a specific course.

1. As a result, the school boards had to encourage students to stay in the youth sector (whose envelope is always open), since funding for the adult sector had been reduced in 1992-1993.

Table 2.6

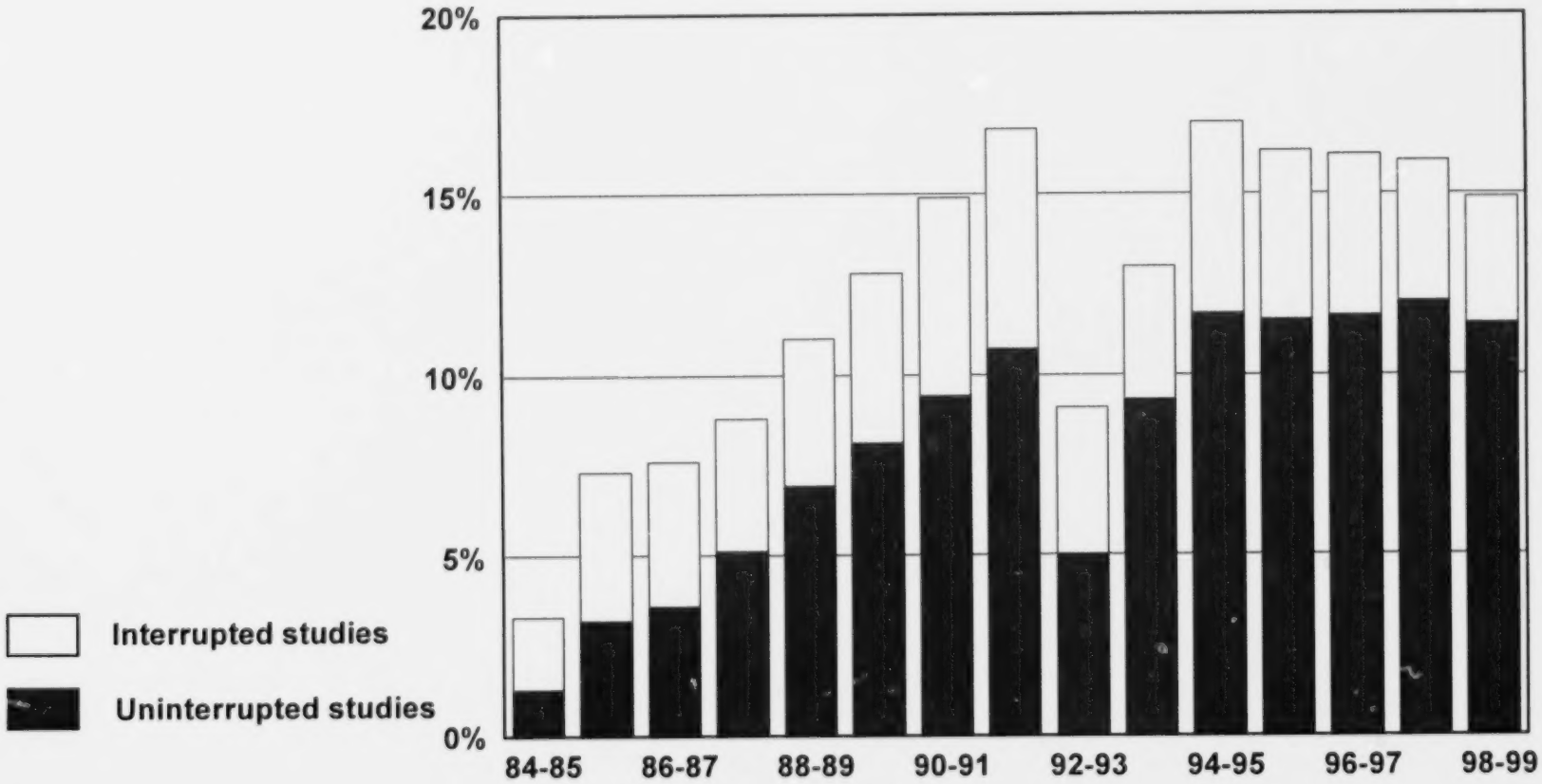
Enrollment in general education in the adult sector of students under the age of 20 without a secondary school diploma, by gender (%)

	1984-1985	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999
Male						
Uninterrupted studies[1] (directly from the youth sector)	1.4	13.6	13.6	13.5	13.7	13.3
Interrupted studies	1.9	5.7	5.2	5.1	4.3	3.8
Total (both categories)	3.3	19.3	18.8	18.6	18.0	17.1
Female						
Uninterrupted studies[1] (directly from the youth sector)	1.1	9.7	9.3	9.5	10.1	9.4
Interrupted studies	2.0	4.8	4.3	4.0	3.5	3.1
Total (both categories)	3.1	14.5	13.6	13.5	13.6	12.5
Total						
Uninterrupted studies[1] (directly from the youth sector)	1.3	11.7	11.5	11.6	12.0	11.4
Interrupted studies	2.0	5.3	4.7	4.5	3.9	3.5
Total (both categories)	3.2	17.0	16.3	16.1	15.8	14.9

1. Uninterrupted studies: Refers to students enrolled in the youth sector on September 30 of the preceding year.

Graph 2.6

Enrollment in general education in the adult sector of students under the age of 20 without a secondary school diploma (%)



2.7 Early School Leavers–Youth and Adult Sectors

In 1998-1999, 28.0% of students in the youth sector or under the age of 20 in the adult sector left school without obtaining a diploma[1]. In the mid-1970s, this rate fluctuated between 45% and 50%, but then began to slide and dropped to under 28% by the mid-1980s. The subsequent increase was caused by several factors, including the stricter graduation requirements set by the basic school regulation[2] and certain measures that stimulated the growth of the adult sector.

The probability of not obtaining a secondary school diploma rose from 12.0% in 1995-1996 to 16.4% in 1998-1999.

The number of students who leave school without a diploma is lower if the graduation rate of adults is considered. If both the youth sector and the adult sector (all ages) are taken into account, the probability of not obtaining a diploma was 16.4% in 1998-1999.

Some students with intellectual impairments leave secondary school without a diploma after attending school until the age of 21. Other students enrolled in continuous individualized paths for learning enter life skills and work skills education programs at the age of 16. The latter students may then obtain an attestation of skills issued by the school board. Although this certificate recognizes that the student has attained a certain level of achievement, it is not considered a diploma in the strict sense of the word. Strictly speaking, these students cannot be considered dropouts. The same holds true for students who transfer from the youth sector to the adult sector without interrupting their studies. In 1998, the Ministère issued close to 5 800 Attestations of Equivalence of Secondary Studies.

In 1998-1999, the probability of female students not obtaining a diploma was 9.5%; for male students it was more than twice as high, at 23.0%.

---

1. The diplomas considered here are the Secondary School Diploma (SSD–including the Short Vocational Diploma and the Long Vocational Diploma), the Secondary School Vocational Certificate (SSVC), the Diploma of Vocational Studies (DVS) (known as the Secondary School Vocational Diploma–SSVD prior to 1998), the Attestation of Vocational Specialization (AVS), the Attestation of Vocational Education (AVE) and certification for on-the-job training in a recycling facility.
2. This refers primarily to the raising of the secondary school pass mark from 50% to 60% and the introduction of an extra year of study in general education as a requirement for admission to vocational education.

Table 2.7

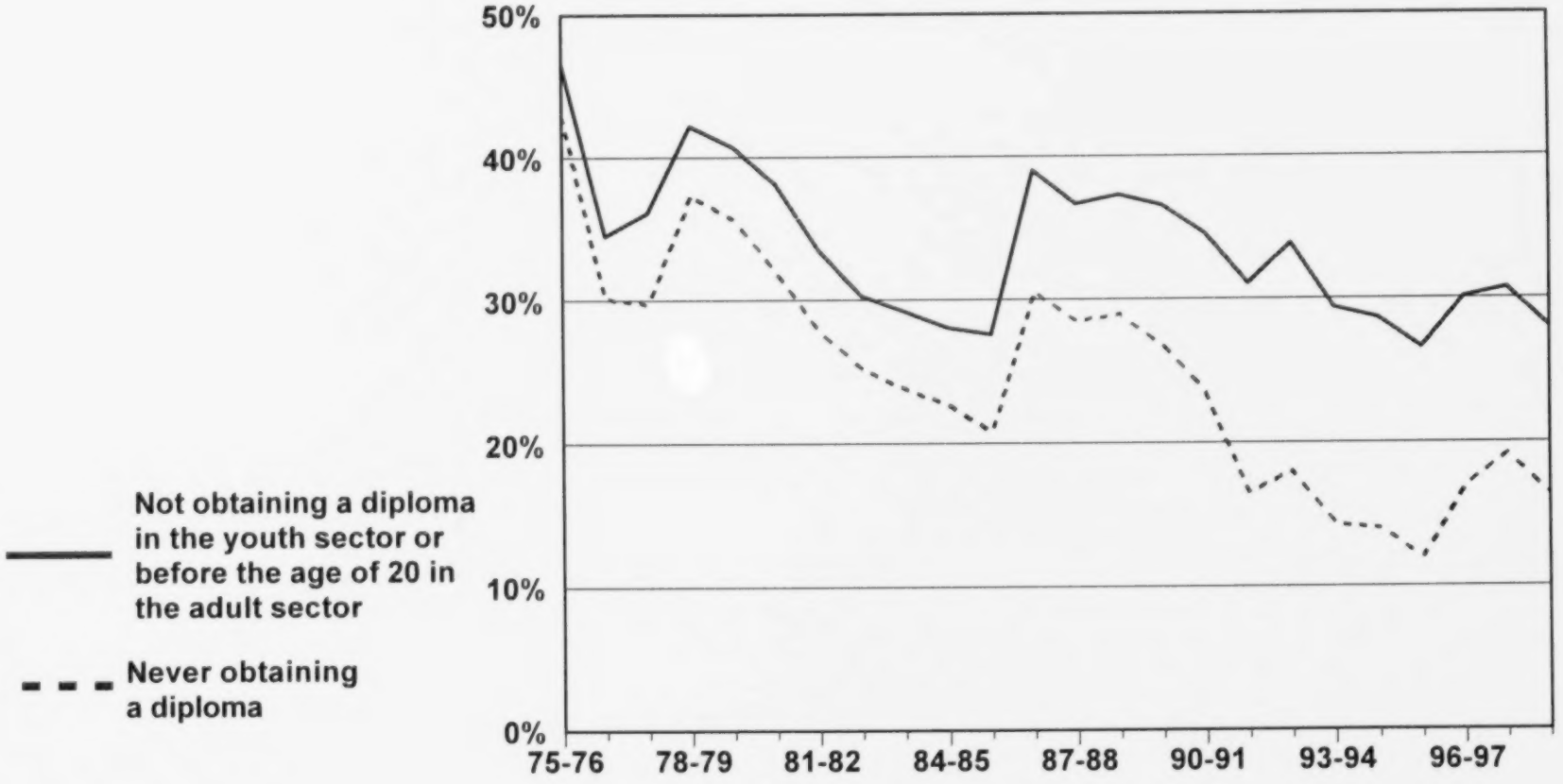
Proportion of a generation of students leaving secondary school without a diploma, by gender (%)

	1975-1976	1985-1986	1995-1996	1997-1998	1998-1999[e]
Male					
Proportion of a generation:					
– not obtaining a diploma in the youth sector	52.6	33.5	35.9	41.3	37.7
– not obtaining a diploma in the youth sector or before the age of 20 in the adult sector	51.8	32.9	33.0	38.2	34.7
– never obtaining a diploma	48.8	26.9	18.6	26.3	23.0
Female					
Proportion of a generation:					
– not obtaining a diploma in the youth sector	41.5	22.7	23.0	26.0	23.9
– not obtaining a diploma in the youth sector or before the age of 20 in the adult sector	40.9	22.0	19.8	22.8	20.9
– never obtaining a diploma	36.9	14.4	5.0	11.8	9.5
Total					
Proportion of a generation:					
– not obtaining a diploma in the youth sector	47.1	28.2	29.6	33.9	31.0
– not obtaining a diploma in the youth sector or before the age of 20 in the adult sector	46.5	27.6	26.6	30.7	28.0
– never obtaining a diploma	43.0	20.8	12.0	19.2	16.4

e: Estimates

Graph 2.7

Proportion of a generation of students leaving secondary school without a diploma (%)



2.8 Dropping Out of Secondary School

Section 2.7 on *early school leavers* measures, among other things, the proportion of a generation of students who never obtain a diploma or, what is incorrectly termed, the dropout rate.

In 1998, 10.8% of 17-year-olds were without a secondary school diploma and were not attending school. This proportion was 26.2% in 1979.

However, when data on early school leavers under the age of 20 is analyzed, the results seem considerably less definitive, because a person without a diploma at 20 may return to school later and graduate. This section proposes a new approach for measuring both official successful completion (graduation) and school attendance of those who have not yet received a diploma. The dropout rate is defined as the proportion of the population that does not attend school and has not obtained a secondary school diploma.

The proportion of the population with a secondary school diploma[1] is measured, by age. The proportion without a diploma but still in school is also measured.[2] When the two measurements are added together and deducted from 100, the figure obtained is the dropout rate by age.

Graph 2.8 shows the downward trend of the dropout rate since 1979. The increase observed in the 1980s is due to the raising of the pass mark, which made it more difficult to obtain a secondary school diploma (see Section 5.2). Normally, the dropout rate increases as age increases; for example, the dropout rate in 1998 was 19.9% for 20-year-olds, 25.6% for 25-year-olds, 23.4% for 30-year-olds,[3] and 29.2% for 35-year-olds.

---

1. The diplomas considered here are the Secondary School Diploma (SSD–including the Short Vocational Diploma and the Long Vocational Diploma), the Secondary School Vocational Certificate (SSVC), the Diploma of Vocational Studies (DVS) (known as the Secondary School Vocational Diploma–SSVD prior to 1998), the Attestation of Vocational Specialization (AVS), the Attestation of Vocational Education (AVE) and the certification for on-the-job training in a recycling facility.
2. At either secondary or college level. It is possible–although less and less in the last few years–for a person without a secondary school diploma to be accepted in college. Persons who enroll in university without a secondary school diploma are not taken into account here.
3. This is the lowest rate for adults; the higher pass mark did not apply to this generation.

An analysis of the data for a given age reveals that the dropout rate has declined a fair amount in the last 20 years; the rate for 17-year-olds went from 26.2% in 1979 to 10.8% in 1998; for 19-year-olds, it dropped from 40.5% to 18.0% during the same period.

Table 2.8 shows the differences between male and female students and indicates that women have the advantage. In 1979, the gaps were relatively small, but they were somewhat more significant in 1998. For example, for 19-year-olds, the dropout rate for men in 1998 was approximately half of what it was in 1979 (22.3% compared with 43.8%); for women, the rate in 1998 was approximately one third of what it was in 1979 (13.5% compared with 37.2%). The situation for women has therefore improved more than the situation of men; this analysis also holds true for the other ages shown in Table 2.8.

Table 2.8

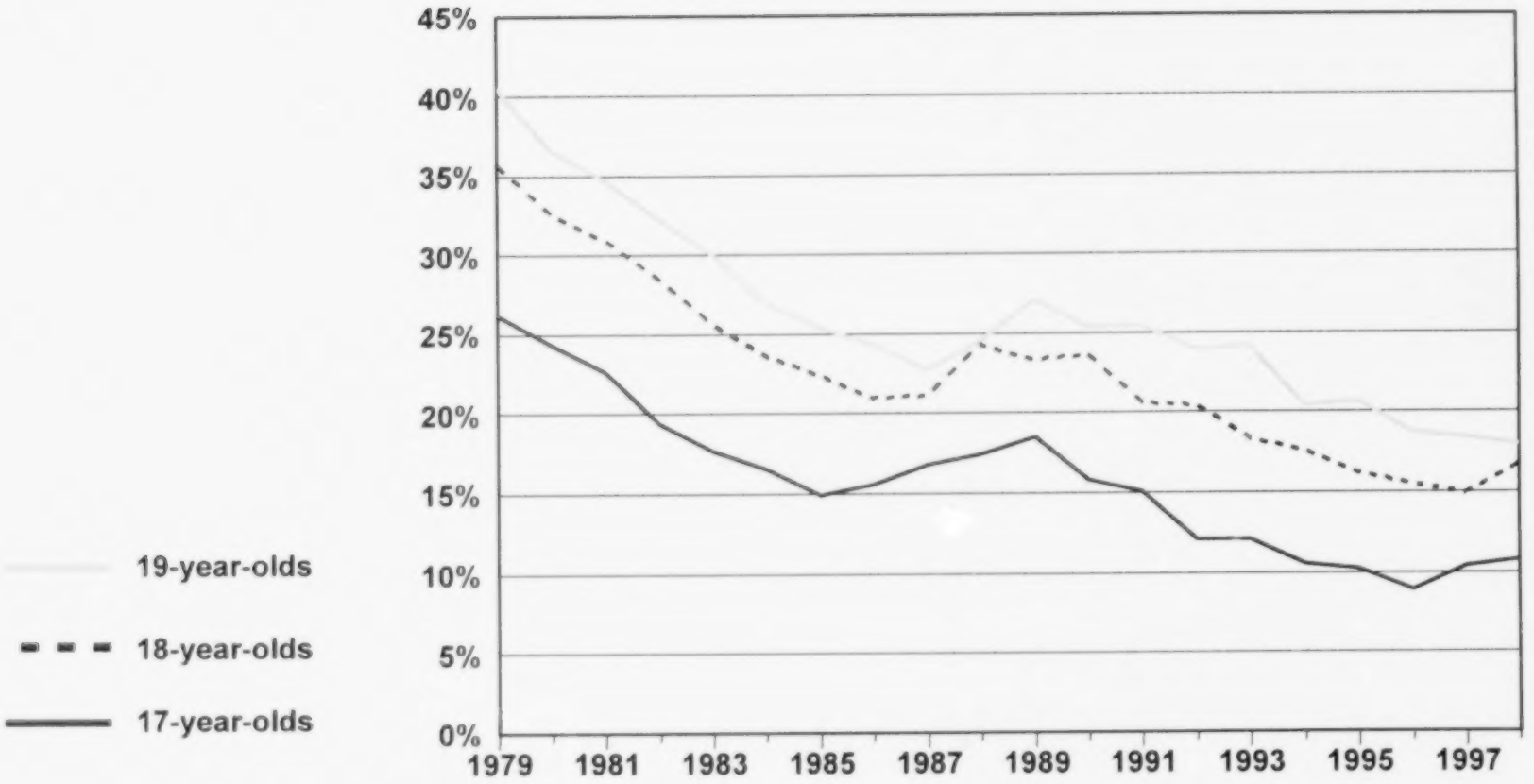
Dropout rate by age and gender (%)

	1979	1984	1989	1994	1997	1998[p]
17-year-olds	**26.2**	**16.5**	**18.5**	**10.5**	**10.4**	**10.8**
Male	27.6	18.8	21.3	12.1	12.8	13.0
Female	24.7	14.0	15.5	8.8	7.9	8.4
18-year-olds	**35.7**	**23.7**	**23.4**	**17.7**	**15.0**	**16.8**
Male	38.0	26.8	27.1	20.6	18.5	20.9
Female	33.2	20.4	19.6	14.6	11.2	12.6
19-year-olds	**40.5**	**26.9**	**27.1**	**20.4**	**18.4**	**18.0**
Male	43.8	30.1	31.1	24.7	22.7	22.3
Female	37.2	23.6	22.9	15.9	13.9	13.5

p: Preliminary figures

Graph 2.8

Dropout rate by age (%)



2.9 Repeating a Year in Elementary School and in Secondary General Education–Youth Sector

Since 1990-1991, the proportion of students repeating a year[1] has been dropping steadily, reaching 5.4% in 1997-1998. In 1998-1999, the proportion rose to 5.8%.

One out of six boys repeated Secondary I in 1998-1999. For girls, the proportion was one out of ten.

The number of male students who repeat a given year is always higher than the number of female students, regardless of the school year or the grade level. The proportion of male students who repeat a year is often more than one and a half times the proportion of female students in the same situation. There are twice as many repeaters in secondary school as there are in elementary school, and the probability of repeating a year is always significantly higher in Secondary I. This situation is not surprising, considering that all elementary school students, including those with difficulties, are sooner or later promoted to secondary school, if only because they have turned 13 years of age. Moreover, students in *individualized paths for learning* may be classified for administrative purposes in Secondary I for several years.

The rate of repeating Secondary I has stayed high since 1983-1984, when it was already at 13.7%. That was the year in which the effects of raising the secondary school pass mark from 50% to 60% were first felt.[2]

In both elementary and secondary school, the first year is always the most difficult to pass. The rate of repeaters tends to dwindle as the grade level increases. Even if the proportion of students who repeat a year is relatively low in the final years of secondary school, that does not necessarily mean that student performance has improved. Indeed, some of these students have reached the age where school attendance is no longer compulsory and they either drop out of school or continue their studies in vocational education or in the adult sector.

---

1. Repeaters are those students who were in the same grade or a higher grade the preceding year. For our purposes, students in Elementary 7 and Secondary VI general education are considered repeaters.
2. The new higher pass mark was applied to students entering secondary school in 1982-1983. Despite incomplete data, it can be established that, in 1982-1983, the proportion of repeaters was 9.2% in Secondary I. Thereafter, between 1983-1984 and 1984-1985, this proportion jumped from 7.0% to 9.3% in Secondary II. In 1985-1986, this figure increased again in Secondary III, and it continued to rise in the subsequent grades until 1987-1988.

Obviously, the cumulative effect of repeating a year is to delay students in their schooling. Thus, in 1997-1998, at the end of the normal six-year period of elementary school, 22.6% of 12-year-olds had not reached secondary school. This proportion was 26.6% for male students and 18.5% for female students.

Grade repeating lengthens the duration of studies, but early school leaving shortens it. While the average duration of secondary studies is 5 years, it is 5.2 years or so for students leaving with a diploma, but only 4.2 years[3] for those leaving without one.

3. These durations do not take into account the time spent in elementary education, which is generally longer for students who do not finish their secondary studies.

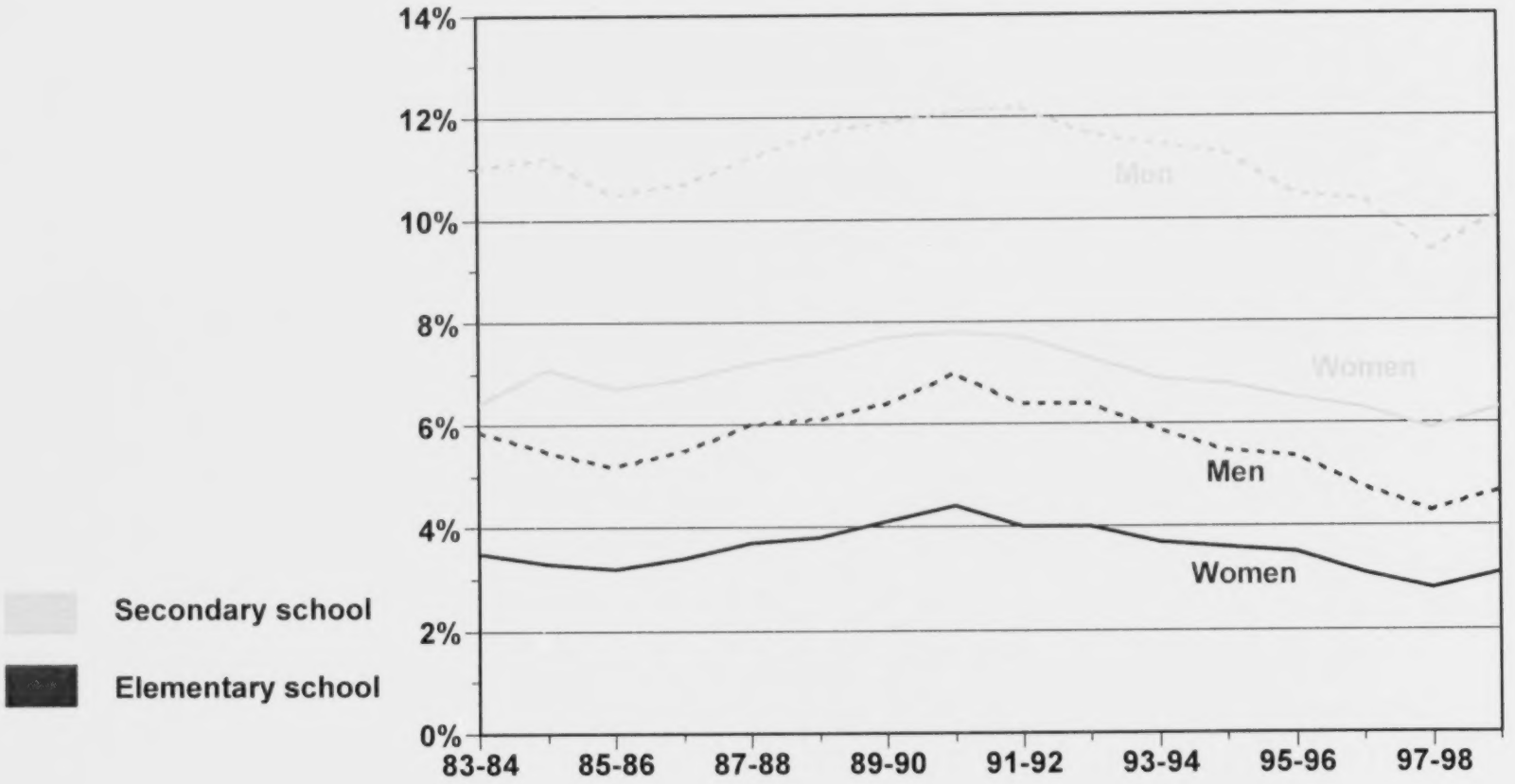
Table 2.9

Proportion of students repeating a year, by level of education and gender (%)

	1983-1984	1990-1991	1995-1996	1996-1997	1997-1998	1998-1999
Elementary school	**4.7**	**5.7**	**4.5**	**4.0**	**3.6**	**3.9**
Male	5.9	7.0	5.4	4.8	4.3	4.7
Female	3.5	4.4	3.5	3.1	2.8	3.1
Secondary school	**8.7**	**10.0**	**8.5**	**8.4**	**7.7**	**8.2**
Male	11.0	12.1	10.5	10.4	9.4	10.1
Female	6.4	7.8	6.5	6.3	5.9	6.3
Secondary I	**13.7**	**15.7**	**16.6**	**15.2**	**14.1**	**14.5**
Male	16.9	18.6	20.1	18.4	16.9	17.6
Female	10.1	12.4	12.7	11.6	10.8	11.1
Total	**6.5**	**7.6**	**6.4**	**6.0**	**5.4**	**5.8**
Male	8.1	9.2	7.8	7.4	6.6	7.1
Female	4.8	5.9	4.9	4.6	4.2	4.5

Graph 2.9

Proportion of students repeating a year, by level of education and gender: 1983-1984 to 1998-1999 (%)



2.10 College Enrollment[1]–Regular Education

In 1998-1999, 58.2% of a generation of young Quebeckers went on to college. This percentage is more than 5 percentage points lower than the rate observed in 1996-1997, just before the drop in the secondary school graduation rate and the tightening of the criteria for admission to CEGEP.[2]

In 1998-1999, college enrollment rose by 0.7 percentage points to 58.2%, putting an end to the downward trend observed since 1996-1997.

Enrollment in college (regular education) rose by almost 22 percentage points between 1975-1976 and 1986-1987 (from 39.3% to 61.2%), followed by a drop of 4.6 percentage points in 1987-1988. In the six years thereafter, it rose by 10 percentage points, reaching a new high of 66.7% in 1993-1994. Since then, enrollment has dropped by 8.5 percentage points for all young Quebeckers.

Since the late 1970s, changes in college enrollment can be largely explained by trends observed at the secondary level in the youth sector: first a rise in the graduation rate in secondary general education until 1985-1986, followed by a drop in the graduation rate owing to the application of tighter standards at the end of the 1980s, then by a return to an upward trend at a slower pace from 1990-1991 to 1995-1996, ending with a sudden drop in 1996-1997, which was finally stopped in 1998-1999.

There is a close correlation between obtaining a secondary school diploma in general education in the youth sector or before the age of 20 in the adult sector and enrolling in college. This correlation would seem to indicate that the majority of general education graduates, as well as a certain number of vocational education graduates, eventually go on to college.

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1. The figures mentioned here include only students enrolled for the first time in programs leading to a Diplôme d'études collégiales (DEC–diploma of college studies) in regular education. In this edition, the method used to calculate the rates has been changed and the rates may differ from those previously published.
2. Since the fall of 1997, students who enroll in CEGEP must not only have their SSD but must also have successfully completed the following courses: Secondary V language of instruction and second language, Secondary IV history and physical science, and Secondary V mathematics or comparable Secondary IV mathematics.

Over a period of 15 years or so, the gap between men and women going on to college widened steadily. Although rather negligible in the mid-1970s, the difference reached 17.0 percentage points in favour of women in 1990-1991. It was 16.8 percentage points in 1998-1999, with women having regained the most ground in the last year.

College enrollment also varies with the type of education involved. Since 1984-1985, the probability of enrolling in pre-university education has dropped slightly, going from 34.7% to 34.0% in 1998-1999, after reaching a high of 43.8% in 1992-1993. The probability of enrolling in technical education at college declined from 21.3% to 18.0% from 1986-1987 to 1989-1990, to return to 21.3% in 1992-1993 and then settle at 19.0% in 1998-1999.

In recent years, the only regular education programs where enrollment has increased is Explorations. In 1993-1994, 4.9% of students undertook college studies in this type of program; in 1998-1999, the figure was 5.2%, which, out of a total of 58.2%, represents close to one in eleven new enrollments.

Table 2.10

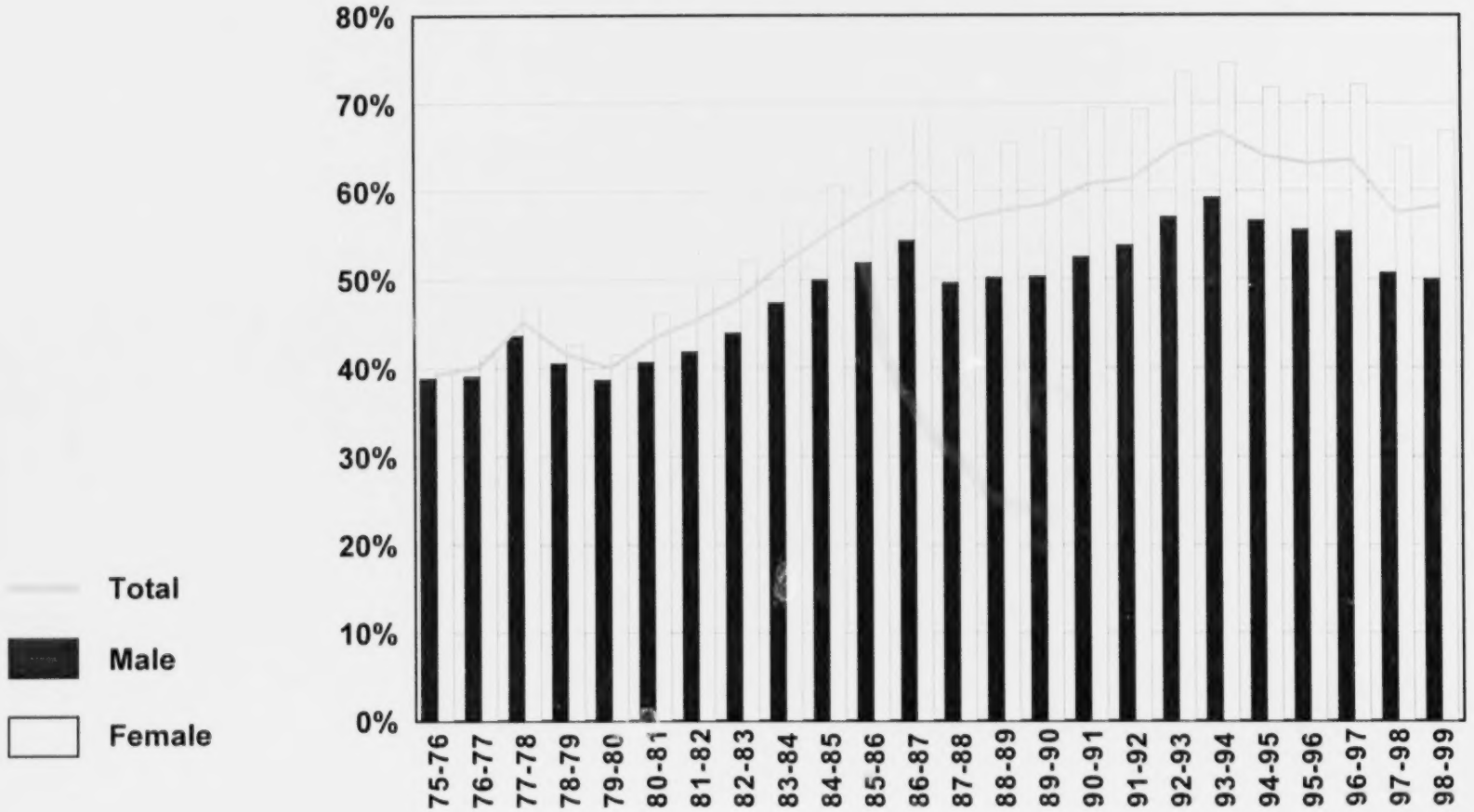
Full- or part-time enrollment in regular education in public or private colleges, by gender and type of education (%)

	1975-1976	1985-1986	1990-1991	1995-1996	1997-1998	1998-1999
Male	**38.9**	**51.9**	**52.5**	**55.6**	**50.7**	**50.0**
Pre-university education	25.4	34.2	36.5	31.3	27.0	26.6
Technical education	13.4	17.7	16.0	18.4	18.3	17.8
Explorations	–	–	–	5.9	5.4	5.6
Female	**39.6**	**64.9**	**69.5**	**70.9**	**64.9**	**66.8**
Pre-university education	22.5	40.9	46.6	44.6	40.7	41.7
Technical education	17.1	23.9	22.9	20.2	19.5	20.3
Explorations	–	–	–	6.1	4.7	4.8
Total	**39.3**	**58.3**	**60.8**	**63.1**	**57.6**	**58.2**
Pre-university education	24.0	37.5	41.4	37.8	33.6	34.0
Technical education	15.3	20.8	19.4	19.3	18.9	19.0
Explorations	–	–	–	6.0	5.0	5.2

–: Not applicable

Graph 2.10

Full- or part-time enrollment in regular education in private or public colleges, by gender (%)



2.11 Going Directly From College to University

In 1997-1998, 81.0% of pre-university program graduates and 21.9% of technical program graduates went on to university.

The main objective of pre-university college studies is to prepare students for university. In 1997-1998, 81.0% of pre-university program graduates aged 24 and under enrolled in university; this proportion was 80.0% in 1996-1997. More women went on to university than men; the rate for women (82.4%) was 3.4 percentage points higher than for men (79.0%).

Since the early 1980s, the proportion of pre-university program graduates[1] going on to university has fluctuated between 78.6% and 86.2%. This rate has been on the rise since 1995-1996.

In technical education, more graduates aged 24 and under opted for the labour market, which is in fact the aim of this type of education. The proportion of these graduates going on to university was 21.9% in 1997-1998, an increase of 2.9 percentage points from the previous year.

For more than ten years, more men than women aged 24 and under and graduates of technical programs pursued university studies. The gap narrowed to 7.5 points in 1982-1983 and then to only 3.1 points in 1996-1997. However, in 1997-1998, the rate of men going on to university jumped 7.0 percentage points compared with 1996-1997, and the gap between men and women reached 9.8 percentage points.

1. This refers to students who, between the months of September and August of a given school year, were enrolled in the last year of a college program and successfully completed their studies. Furthermore, these students did not attend a CEGEP, private college certified for purposes of funding or government institution during the fall term following the completion of their studies.

Table 2.11

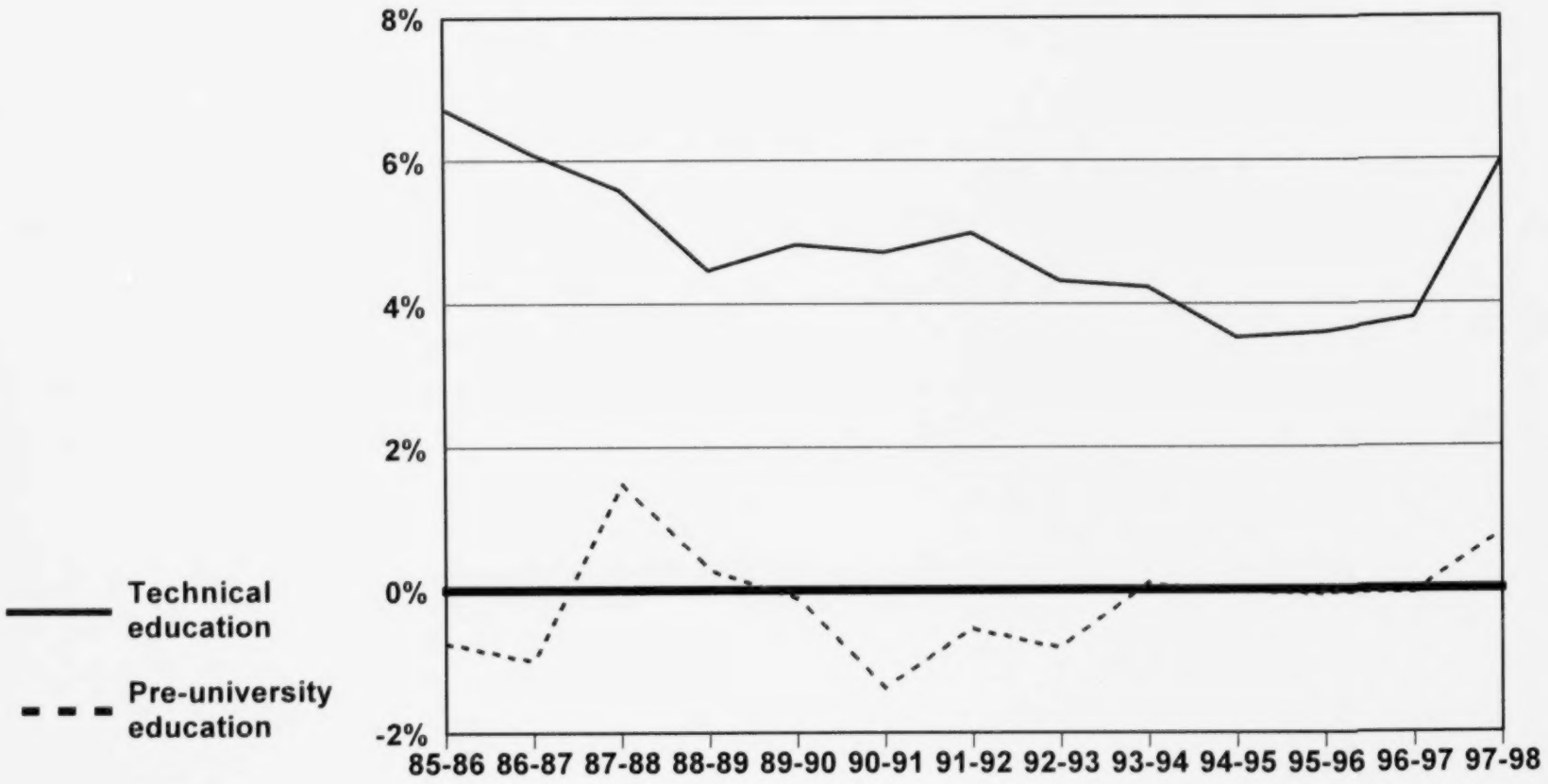
Proportion of college graduates (24 years old and under) going on to university without interrupting their studies, by type of education and gender (%)

	1982-1983[1]	1990-1991	1994-1995	1995-1996	1996-1997	1997-1998
Pre-university education						
Male	87.7	86.1	78.4	77.7	81.5	79.0
Female	84.3	86.3	79.8	79.3	79.0	82.4
Total	**86.0**	**86.2**	**79.2**	**78.6**	**80.0**	**81.0**
Technical education						
Male	21.9	22.0	21.2	21.4	21.0	28.0
Female	14.4	18.5	17.7	17.3	17.9	18.2
Total	**17.4**	**19.8**	**19.2**	**18.9**	**19.0**	**21.9**

1. Year of graduation

Graph 2.11

Going directly from college to university: gap between men and women (3-year moving percentage)



2.12 University Enrollment

This section concerns only enrollment in programs leading to a university degree at the bachelor's, master's or doctoral level. Enrollment in certificate programs and non-program studies are not measured here.

In 1998-1999, the proportion of men enrolling in university studies leading to a bachelor's degree stood at 27.7%, the lowest level in 15 years.

In 1992-1993, the proportion of a generation enrolled for the first time in programs leading to a bachelor's degree had increased by one third over an 8-year period, climbing to 39.7% from 30.1% in 1984-1985. Since 1992-1993, there has been a decline of 5.8 percentage points in enrollment in bachelor's programs, lowering the probability of enrolling in university to 33.9% in 1998-1999, below the 1987-1988 level. A similar decline was observed in enrollment in college pre-university programs after 1992-1993 (see Section 2.10).

Over this 15-year period, only women showed gains in enrollment in bachelor's programs: an increase of 9.2 percentage points brought them to 40.5% in 1998-1999, whereas men (27.7%) were below the level observed in 1984-1985. The gap between the sexes was 12.8 percentage points, whereas it had been 2.4 percentage points 14 years earlier.

With respect to master's programs, enrollment rose to 9.1% after dropping for the first time in 1997-1998. Here too, gains were more favourable for women, whose enrollment rate was 9.4% in 1998-1999, compared with 8.8% for men. In 1984-1985, the difference was 1.5 percentage points in favour of men. The overall increase in enrollment in master's programs (2.3 percentage points) between 1984-1985 and 1998-1999 was relatively greater than that observed at the bachelor's level, where there has in fact been a decrease in enrollment over the last 6 years.

The growing interest in doctoral studies is significant even though it applies to only a small portion of the population. Enrollment rose from 1.1% in 1984-1985 to 1.8% in 1998-1999. Men (1.9%) continue to enroll in doctoral studies in slightly greater numbers than women (1.6%), but the number of women enrolling at this level has increased more rapidly in the last 15 years.

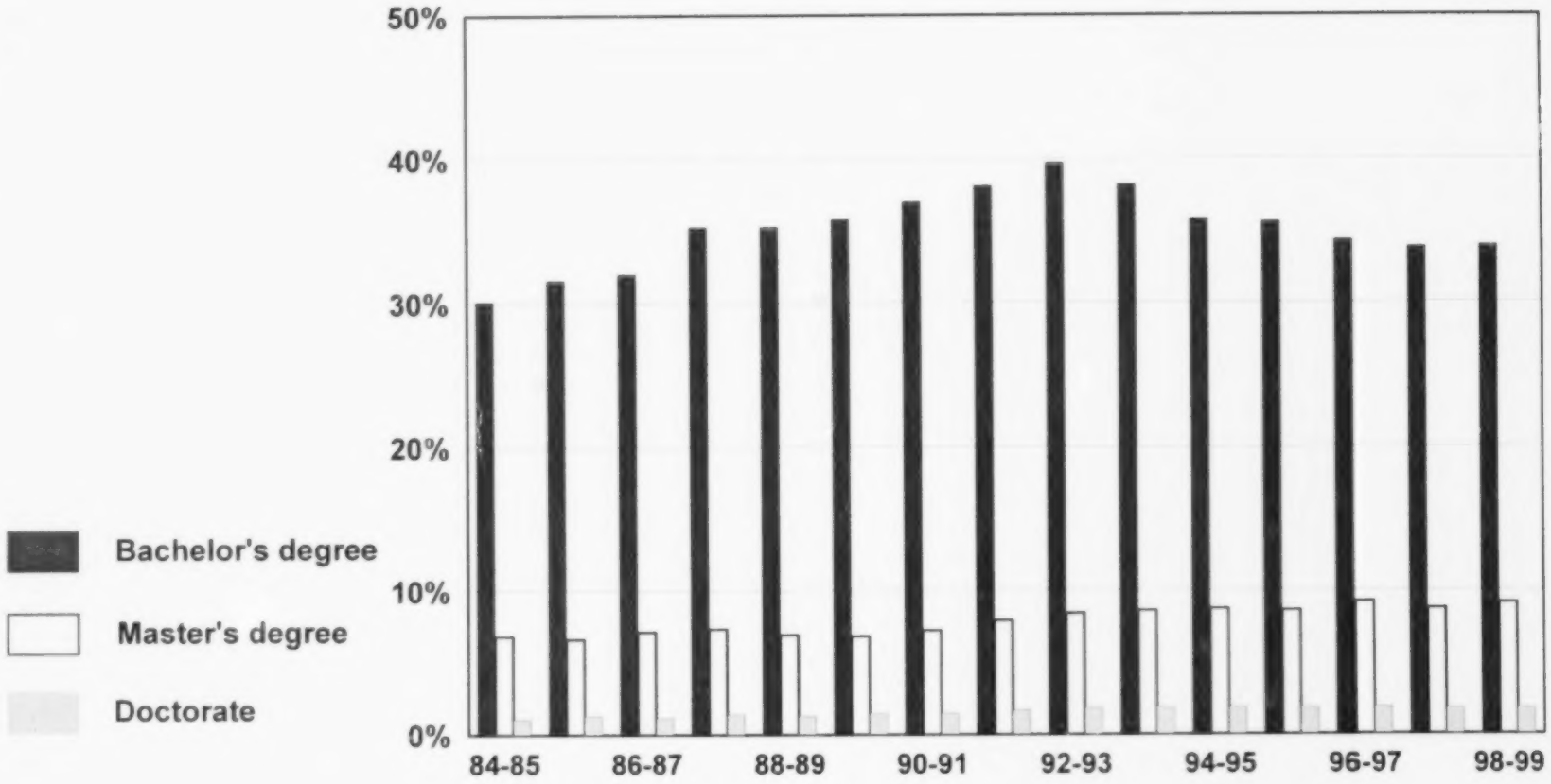
Table 2.12

Enrollment in programs leading to a university degree, by gender (%)

	1984-1985	1989-1990	1992-1993	1994-1995	1997-1998	1998-1999
Bachelor's programs						
Male	29.0	31.9	34.8	30.6	28.9	27.7
Female	31.3	39.9	44.9	41.2	39.1	40.5
Total	**30.1**	**35.8**	**39.7**	**35.8**	**33.8**	**33.9**
Master's programs						
Male	7.5	7.0	8.5	8.4	8.4	8.8
Female	6.0	6.7	8.3	9.0	8.9	9.4
Total	**6.8**	**6.8**	**8.4**	**8.7**	**8.7**	**9.1**
Doctoral programs						
Male	1.4	1.9	2.3	2.2	1.9	1.9
Female	0.8	1.1	1.4	1.6	1.7	1.6
Total	**1.1**	**1.5**	**1.9**	**1.9**	**1.8**	**1.8**

Graph 2.12

Enrollment in a program leading to a university degree (%)



2.13 Training of Researchers

Students enrolled in a program leading to a doctorate are probably the most likely to go into university research. In the fall of 1998, these students numbered 8 856. From 1990 to 1998, their number increased by 3% a year on average.

In the fall of 1998, 32% of doctoral students were enrolled in social sciences, 16% in applied sciences, 15% in pure sciences and 12% in health sciences.

Enrollment in doctoral programs is mainly concentrated in social sciences, pure and applied sciences, and health sciences. In 1998, 32% of doctoral candidates were in social sciences, 16% in applied sciences, 15% in pure sciences and 12% in health sciences.

Men accounted for most of the students enrolled in a program leading to a doctorate (55% in the fall of 1998, compared with 45% for the women). In 1990, the percentages were 65% and 35%, respectively. From 1990 to 1998, the increase in the number of women enrolled in doctoral programs (6%) was greater than it was for men (1%).[1]

In 1998, approximately 80% of the men in doctoral programs were enrolled in social sciences (27%), applied sciences (23%), pure sciences (19%) and health sciences (11%). The number of men enrolled in business administration has increased the most since 1990, that is, an average of 9% per year.[2]

The distribution of enrollments in doctoral programs differs for women and men. In the fall of 1998, 39% of the female students were in social sciences, 13% were in health sciences, 11% were in literature, 11% were in pure sciences and 8% were in applied sciences. The largest annual increases in female enrollment since 1990 have been in the fields of law (14% of the average annual increase), the arts (12%), applied science (10%), business administration (7%), and health sciences (7%).[3]

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1. See Section 2.12.
2. Male enrollment in interdisciplinary studies, which went from 39 in 1990 to 68 in 1998, is not taken into consideration.
3. Female enrollment in interdisciplinary studies, which went from 21 in 1990 to 37 in 1998, is not taken into consideration.

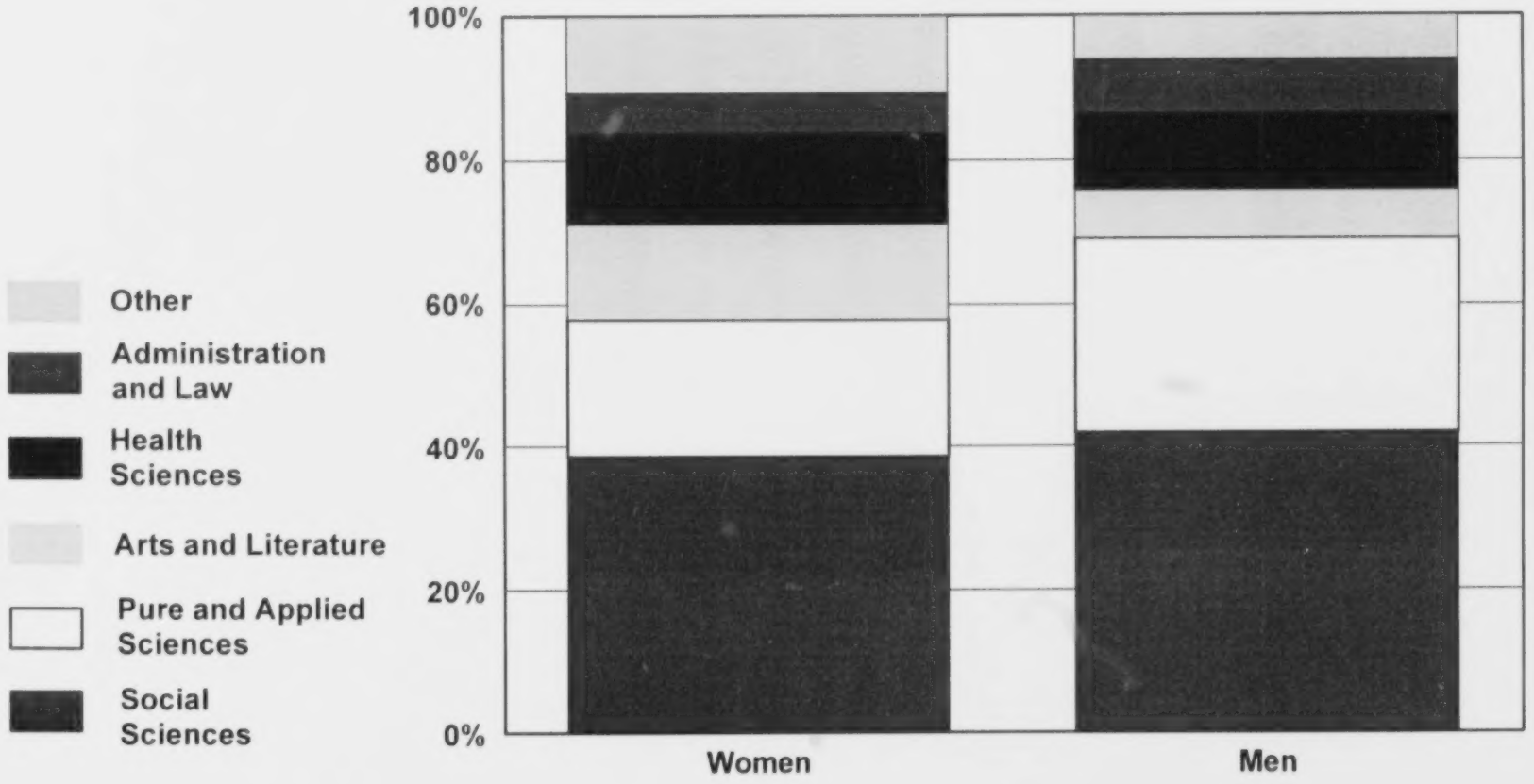
Table 2.13

Enrollment in doctoral programs, by field of study, 1990 to 1998 (fall term)

	1990	1993	1995	1996	1997	1998
Arts	96	101	120	132	157	175
Literature	654	708	770	760	770	690
Business administration	258	334	391	435	475	482
Law	58	79	103	103	105	107
Education	549	547	587	629	609	594
Social sciences	2 168	2 559	2 735	2 805	2 839	2 865
Pure sciences	1 229	1 516	1 506	1 448	1 434	1 367
Applied sciences	1 277	1 709	1 716	1 634	1 558	1 433
Health sciences	662	798	958	1 009	1 053	1 021
Interdisciplinary studies	60	101	127	134	125	105
Not applicable	26	40	164	158	143	17
Total	**7 037**	**8 492**	**9 177**	**9 247**	**9 268**	**8 856**

Graph 2.13

Distribution of enrollments in doctoral programs, by gender and field of study, fall 1998



3.1 Success in Secondary Cycle Two of General Education–Adult Sector[1]

Of the students in general education in the adult sector who left secondary school in 1997-1998, 13.6% obtained a diploma. If only students in Cycle Two are considered, the proportion more than triples, to 45.9%. Of the various instructional services offered,[2] only Secondary Cycle Two normally leads to a diploma. Figures for new enrollments broken down according to instructional service are available as of 1988-1989 only. These figures show that the proportion of graduates was 23.2% for students leaving Secondary Cycle Two; the rate has therefore more than doubled since that time.

For students under the age of 20 who were enrolled in Secondary Cycle Two in the adult sector in 1997-1998, the probability of obtaining a diploma was 58.1%.

Although the attainment of a diploma is not the most appropriate criterion for measuring success in the other instructional services, it can nevertheless be observed that the proportion of graduates is on the rise among students in all the instructional services in the adult sector. Since 1980-1981, this proportion has risen from 11.5% to 13.6%. This increase is primarily due to the fact that fewer students are dropping out of instructional services that do not lead directly to a diploma. Instead of quitting school, students pursue their studies in another instructional service and thus enter Cycle Two and eventually earn a secondary school diploma.

Among students leaving school, the proportion who hold a diploma is higher for those under the age of 20 than for all ages combined. Thus, in Secondary Cycle Two, 58.1% of the students leaving before the age of 20 did so with a diploma;

1. Success in general education is measured here by the proportion of new holders of a diploma among all general education students leaving secondary school with or without a diploma. The diplomas counted are those obtained during or at the end of the last year of enrollment or the following year, if the student has not re-enrolled. Students are considered to have left school without a diploma when they have been absent for a period of at least two years following the last year of enrollment.
2. The following instructional services are offered, or were offered in the past, in general education in the adult sector: Integration into Community Life Program (ICLP), sociovocational integration, pre-employment training activities (PTA), literacy, francization, adults educated in the youth sector, study skills and career planning, presecondary education, secondary cycle one, secondary cycle two, vocational education preparation, postsecondary education preparation and preparation for higher education.

progress has been considerable in this respect, because the corresponding proportion for 1988-1989 was 36.3%. With respect to instructional services as a whole, the proportion of those under the age of 20 leaving with a diploma went from 22.0% to 24.0% between 1980-1981 and 1997-1998.

In 1980-1981, the success rate was slightly higher for male students than for female students, but the situation has since reversed. In 1997-1998, the success rate for female students exceeded that of male students by 3.2 percentage points, and this difference was 9.9 percentage points for those under 20 years of age.

Table 3.1

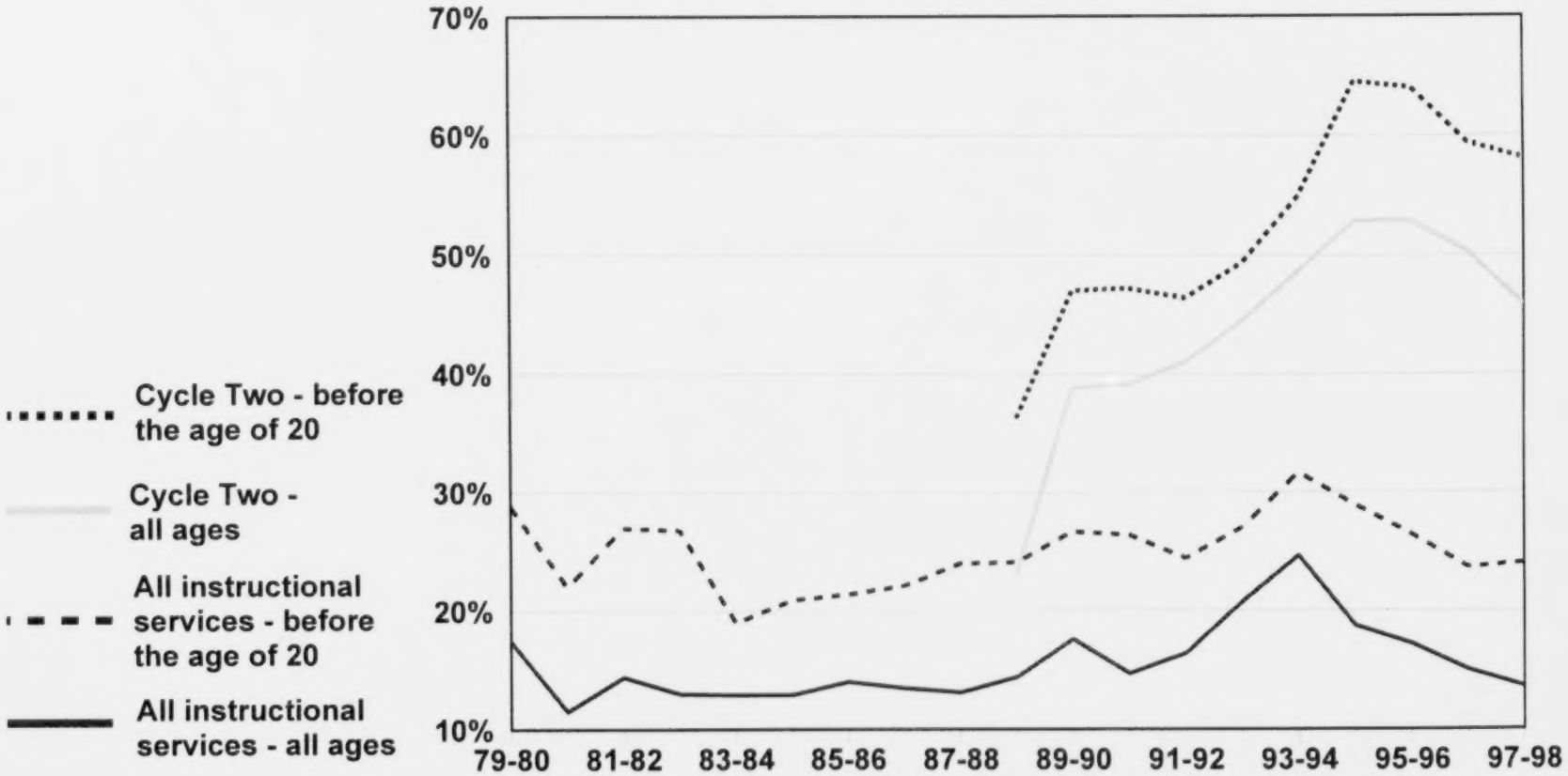
Proportion of students leaving general education in the adult sector with a diploma,[1] by gender, instructional service, age and last year of enrollment (%)

	1980-1981	1988-1989	1990-1991	1995-1996	1996-1997	1997-1998[e]
Male						
Secondary Cycle Two	N/A	22.7	36.8	49.9	47.2	43.6
Before the age of 20	N/A	36.2	44.5	60.5	55.6	55.5
All instructional services	13.1	13.2	12.9	14.7	12.8	12.1
Before the age of 20	23.1	22.4	23.1	21.9	19.3	19.8
Female						
Secondary Cycle Two	N/A	23.6	41.0	55.7	53.1	47.9
Before the age of 20	N/A	36.4	49.8	67.4	63.3	60.5
All instructional services	10.3	15.3	16.3	19.8	17.4	15.3
Before the age of 20	20.8	25.8	30.1	32.8	30.2	29.7
Total						
Secondary Cycle Two	N/A	23.2	39.1	52.9	50.3	45.9
Before the age of 20	N/A	36.3	47.2	64.0	59.4	58.1
All instructional services	11.5	14.4	14.7	17.2	15.0	13.6
Before the age of 20	22.0	24.1	26.4	26.4	23.6	24.0

N/A: Data not available
e: Estimates
1. All secondary school diplomas are taken into account.

Graph 3.1

Proportion of students leaving general education in the adult sector with a diploma, by last year of enrollment (%)



3.2 Success in Secondary Vocational Education[1]

Of the students in vocational education who left secondary school in 1997-1998, 53.5% obtained a diploma. If only full-time students are considered,[2] the proportion of graduates climbs to 77.7%.

At the end of 1997-1998, the success rate for students enrolled full time in a vocational education program was 77.7%; this rate has remained stable since the beginning of the 1990s.

Since the beginning of the vocational education reform in 1987-1988, the percentage of graduates has increased appreciably. For example, at the end of 1997-1998, the proportion of students graduating from programs leading to a Secondary School Vocational Diploma (SSVD) (known as the Diploma of Vocational Studies–DVS since 1998-1999) was 66.4%, compared with 43.4% in 1988-1989. In terms of the situation for long vocational programs at the beginning of the 1980s, the success rate for DVS programs has not increased much, but data on long vocational programs concerned only the youth sector. If only full-time students are considered,[2] progress is more evident. As noted earlier, the proportion of graduates among students enrolled for the last time in 1997-1998 was 77.7%, compared with 56.3% for students enrolled for the last time in 1980-1981.

However, if we consider all school leavers without taking into account the sector or whether enrollment is full-time or part-time, the proportion of diplomas has also increased since the early 1980s. Thus, the success rate of persons enrolled in vocational education for the last time in 1980-1981 was 46.6%. This overall proportion rose to 53.5% in 1997-1998. This can be explained by the stronger presence in recent years of categories of students whose success rate, as measured here, is higher. Fewer persons are enrolling part time in vocational education or using it as a form of academic upgrading without necessarily working towards a diploma.

---

1. Success in vocational education is measured here by the proportion of new holders of a diploma among all vocational education students leaving secondary school with or without a diploma. The diplomas counted are those obtained during or at the end of the last year of enrollment or the following year, if the student has not re-enrolled. Students are considered to have left school without a diploma when they have been absent for a period of at least two years following the last year of enrollment.
2. Students enrolled for 270 course hours or more per year are considered to be full-time.

There was a significant decline in the number of new enrollments in vocational education during the 1980s (see Section 2.5). Students are now required to spend more time in general education before being admitted into vocational education. General education graduates still have higher success rates in vocational education than students who do not already have a diploma. This explains in large part the higher success rate observed for all school leavers in recent years.

There are varying differences in the results of male and female students over the years. For programs leading to a DVS, the success rate for male students is 2 to 10 percentage points higher than for female students. Moreover, the differences are reversed, as well as higher, when only the overall success rate by gender is considered. In this case, the success rate for female students is higher: for example in 1997-1998, it was 58.9%, compared with 49.6% for male students. This is due to the fact that female enrollment in vocational education is primarily concentrated in categories where success is higher, that is, diploma programs and full-time studies.

Table 3.2

Proportion of students leaving secondary vocational education with a diploma,[1] by gender, category and last year of enrollment (%)

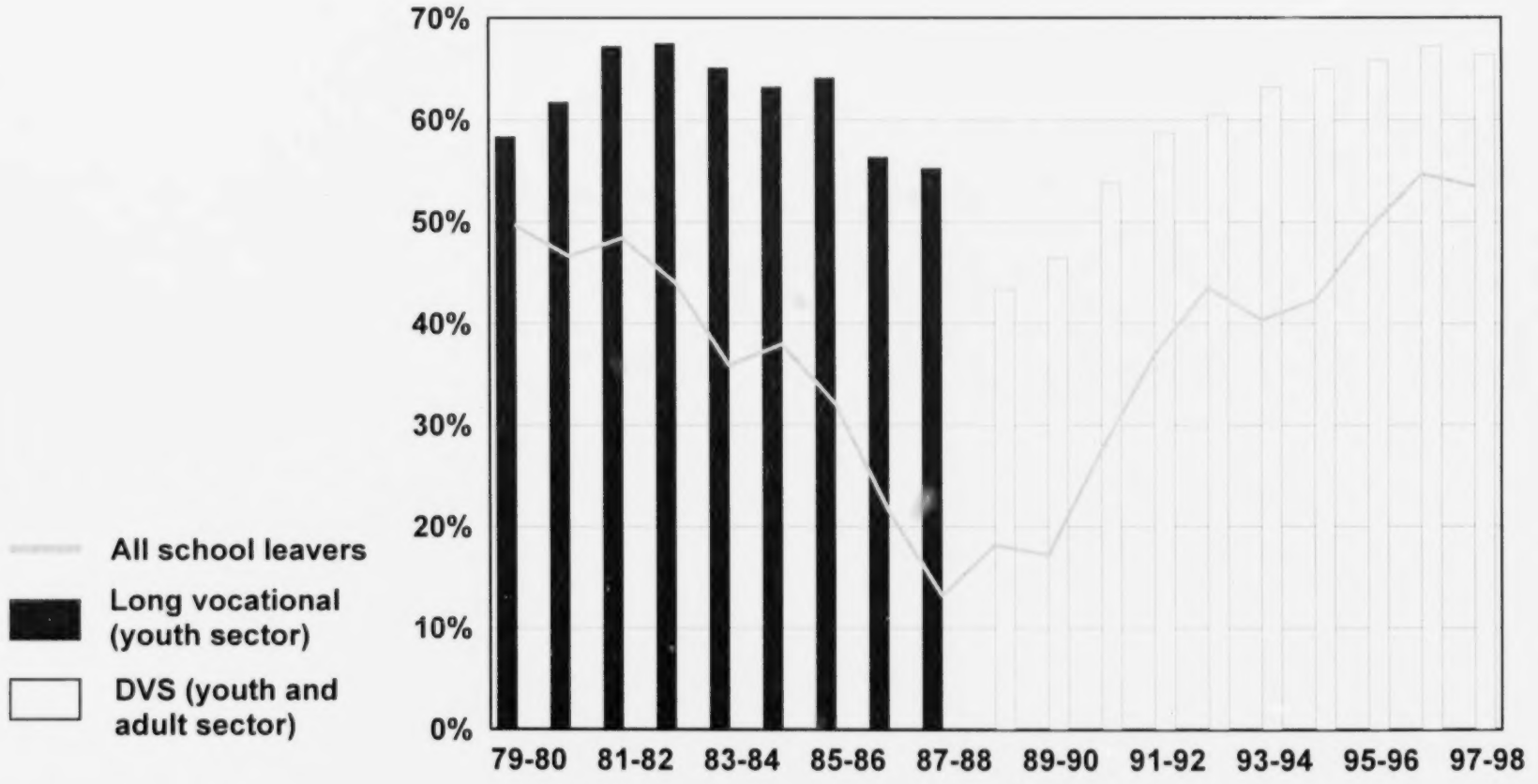
	1980-1981	1985-1986	1990-1991	1995-1996	1996-1997	1997-1998[e]
Male						
Long vocational or DVS[2]	57.1	58.3	59.4	67.5	68.2	67.3
Full-time[3]	51.8	51.4	80.6	79.4	79.1	78.2
All male school leavers	48.3	28.7	21.3	45.9	51.0	49.6
Female						
Long vocational or DVS[2]	65.5	69.5	49.8	64.3	66.0	65.4
Full-time[3]	61.3	62.0	79.6	78.1	78.2	77.0
All female school leavers	45.2	36.2	39.0	53.8	59.7	58.9
Total						
Long vocational or DVS[2]	61.7	64.1	53.8	65.9	67.2	66.4
Full-time[3]	56.3	56.6	80.1	78.8	78.7	77.7
All school leavers	46.6	32.1	27.5	49.3	54.7	53.5

e: Estimates

1. All secondary school diplomas are taken into account.
2. Figures for 1980-1981 and 1985-1986 cover enrollment in long vocational programs in the youth sector. After 1988-1989, figures take into account DVSs in the youth and adult sectors.
3. Students enrolled for 270 course hours or more per year are considered to be full-time.

Graph 3.2

Proportion of students leaving secondary vocational education with a diploma, by last year of enrollment (%)



3.3 Success in Pre-University Programs in Regular College Education[1]

Of the students enrolled in pre-university education who left college at the end of 1997-1998, 69.2% obtained a DEC, for an increase of almost 3 percentage points over the preceding year.

Of the students in pre-university programs who left regular college education at the end of the 1997-1998 school year, 69.2% obtained a Diplôme d'études collégiales (DEC–diploma of college studies). In the past 16 years, this graduation rate has fluctuated between 63.9% and 71.6%. A significant increase in the success rate has been observed since 1995-1996, and an even bigger increase since 1996-1997. The stricter admission criteria that came into effect in the fall of 1997 (see Section 2.10) largely explain this increase, because fewer of the students who are most likely to quit their studies are able to enroll in college.

In this area, women tend to do better than men and the gap in their favour has grown over the years. In 1980-1981, the proportion of women finishing their pre-university education with a DEC surpassed that of men by 3.9 percentage points. In 1997-1998, the gap was 12.7 percentage points in favour of women (11.0 in 1995-1996). This phenomenon, coupled with the fact that more women than men enroll in college (see Section 2.10), explains the difference between the sexes with respect to graduation rates (see Section 5.5).

When the type of program in which students begin their college education is taken into account, the success rate is slightly above average for those who began their studies in pre-university programs. In 1996-1997, the success rate for these students was 68.3%. Moreover, students arriving from technical programs had markedly lower success rates (more than 52.6% until 1993-1994). Given that since 1994-1995 some school leavers have also begun in Explorations programs (introduced the previous year), the success rate dropped once again for pre-university program students who came from another type of program. This rate has been only about 47.0% since 1994-1995.

---

1. Success in pre-university programs in regular college education is measured here by the proportion of new holders of a DEC among all students in pre-university programs in regular college education who leave programs leading to a DEC, with or without a diploma. DECs of all types are counted, whether they were obtained during or at the end of the school year in which the student was last enrolled, or the following year, if the student has not re-enrolled in a program leading to a DEC. Students are considered to have left school without a diploma when they have been absent for a period of at least two school years following the last year of enrollment.

In theory, it takes two years to obtain a DEC in a pre-university program, but very few students do so within this timeframe. In fact, in 1996-1997, the rate for completion within two years (that is, the time elapsed from initial enrollment in a program leading to a DEC) was 37.6% for students who began their studies in a pre-university program. This rate varied between 35% in 1985-1986 and 40.8% in 1993-1994. If all pre-university program school leavers are considered, regardless of the program in which they were initially enrolled, obviously their success rate for two-year completion will be lower because students who transfer from other programs spend more time in school. Generally, almost all (98%) of the pre-university DECs are obtained within five years after the start of college studies. In 1996-1997, the success rate for these students was 67.1%.

Table 3.3

Proportion of students leaving a pre-university program with a DEC, by last year of enrollment in regular college education, gender, type of initial program, and time elapsed[1] since initial enrollment (%)

	1980-1981	1985-1986	1990-1991	1995-1996	1996-1997	1997-1998[e]
Male and female						
Same type of initial program						
2 years or less[1]	N/A	36.3	40.5	36.7	37.5	40.7
5 years or less[1]	N/A	64.3	70.8	65.3	67.2	70.0
All durations	N/A	65.3	72.0	66.6	68.5	71.5
Other type of initial program[2]						
All durations	N/A	63.8	61.3	47.4[2]	47.5[2]	50.1[2]
All types of initial programs–all durations						
Male and female	66.8	65.1	71.4	64.8	66.4	69.2
Male	64.9	60.9	66.2	58.7	59.8	61.9
Female	68.8	69.3	75.8	69.6	71.5	74.6

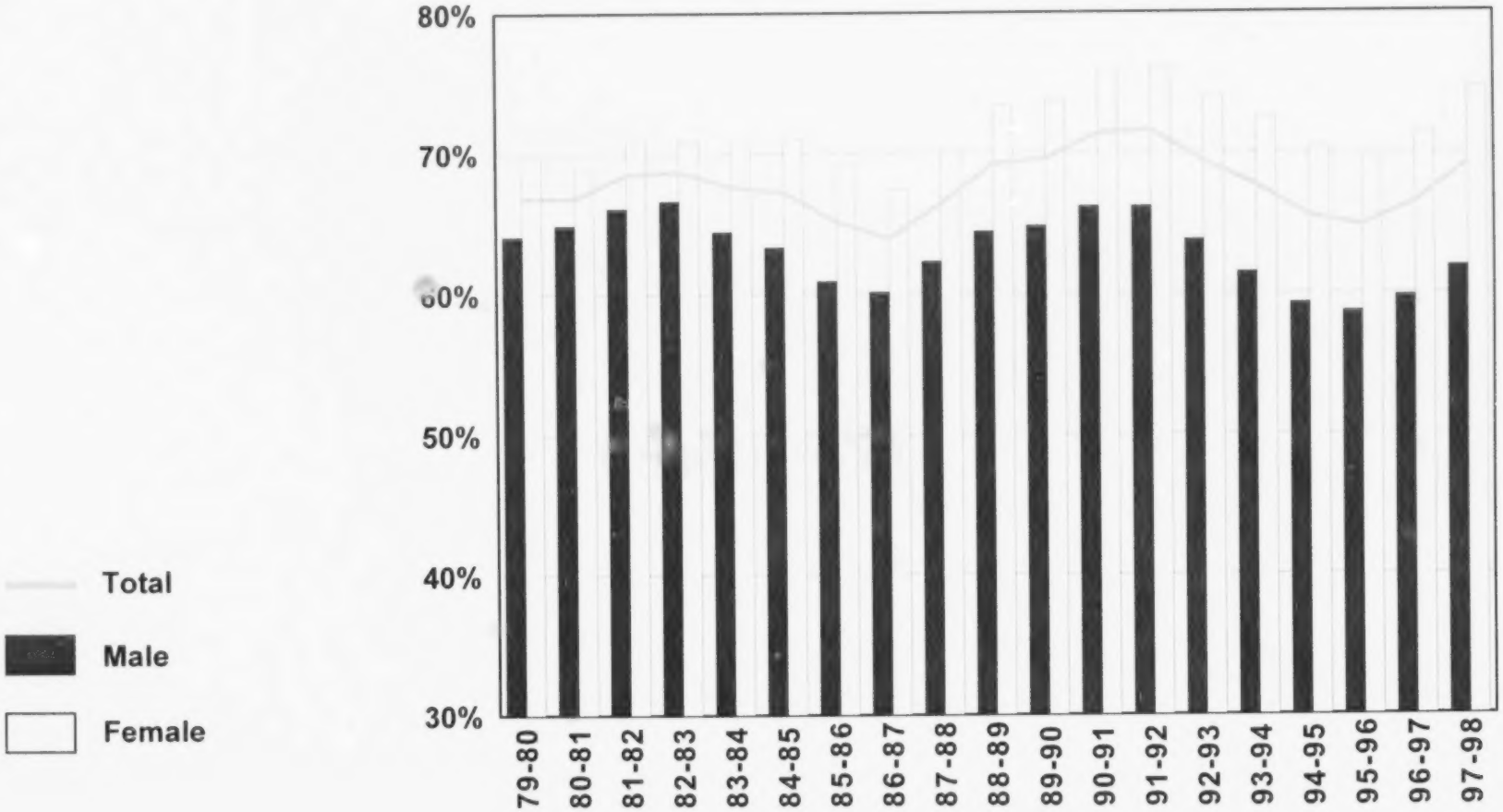
e: Estimates

N/A: Data not available

1. The time elapsed since initial enrollment is not necessarily the same as the duration of studies, because the studies may have been interrupted at some point.
2. Until 1993-1994, this category referred to students who began their studies in technical programs. As of 1994-1995, this category also includes students who leave pre-university education (with or without a diploma) after having begun in an Explorations program the previous year.

Graph 3.3

Proportion of students leaving a pre-university program with a DEC, by gender and last year of enrollment in regular college education (%)



3.4 Success in Technical Programs in Regular College Education[1]

Of the students in regular college education who left technical programs at the end of 1997-1998, 52.9% obtained a Diplôme d'études collégiales (DEC–diploma of college studies). In the past 16 years, this graduation rate has fluctuated between 52.7% and 60.7%.

Of the students enrolled in technical education who left college in 1997-1998, 52.9% obtained a DEC; this figure has dropped by more than 6 percentage points since 1990-1991.

In this area, women still do better than men, with the difference being at its highest in 1997-1998. The success rate for women was 60.8% compared with 44.2% for men, for a gap of 16.6 percentage points in favour of women. This phenomenon, coupled with the fact that more women than men enroll in college (see Section 2.10), explains the difference between the sexes with respect to graduation rates (see Section 5.5).

When the type of program in which students begin their college education is taken into account, the success rate is slightly below average for those who began their studies in technical programs (52.3% in 1997-1998). Moreover, students who began in pre-university programs and who transferred to technical programs had markedly higher success rates (more than 60% until 1993-1994). Since 1994-1995, the success rates of students who began their college studies in programs other than technical programs remained higher than the average (54.2% in 1997-1998), but were brought down by the rates of students in Explorations programs (introduced the previous year). Students who began elsewhere than in technical programs accounted for close to one quarter of these graduates; they accounted for more than 30% of technical DECs in 1997-1998.

In theory, it takes three years to earn a DEC in a technical program, but very few students do so within this timeframe. In fact, the rates for completion within three years (that is, the time elapsed from initial enrollment in a program leading to a

1. Success in technical programs in regular college education is measured here by the proportion of new holders of a DEC among all students in technical programs in regular college education who leave programs leading to a DEC, with or without a diploma. DECs of all types are counted, whether they were obtained during or at the end of the school year in which the student was last enrolled, or the following year, if the student has not re-enrolled in a program leading to a DEC. Students are considered to have left school without a diploma when they have been absent for a period of at least two school years following the last year of enrollment.

DEC) was 26.7% in 1997-1998 for all students who began in technical programs. If all technical education graduates are considered, regardless of the program in which they were initially enrolled, obviously their success rate for three-year completion will be lower because students who transfer spend more time in school. Generally, a higher proportion (85% to 90%) of technical education DECs are obtained within five years after the start of college studies; in 1997-1997, the success rate for these students was 47.1%.

While students who began their college studies directly in technical programs can obtain their DEC more quickly, it seems that the students who come from pre-university programs are more likely to obtain their DEC if the time elapsed since the beginning of their studies is not taken into account.

Table 3.4

Proportion of students leaving a technical program with a DEC, by last year of enrollment in regular college education, gender, type of initial program, and time elapsed since initial enrollment[1] (%)

	1980-1981	1985-1986	1990-1991	1995-1996	1996-1997	1997-1998[e]
Male and female						
Same type of initial program						
3 years or less[1]	N/A	28.7	29.6	26.8	24.8	26.7
5 years or less[1]	N/A	50.5	51.1	47.8	46.0	47.1
All durations	N/A	53.7	56.6	53.1	51.5	52.3
Other type of initial program[2]						
All durations	N/A	61.1	64.4	55.5[2]	55.2[2]	54.2
All types of initial programs–all durations						
Male and female	59.0	55.1	58.6	53.8	52.7	52.9
Male	53.9	49.2	54.7	46.0	45.4	44.2
Female	63.0	59.8	61.3	60.8	59.2	60.8

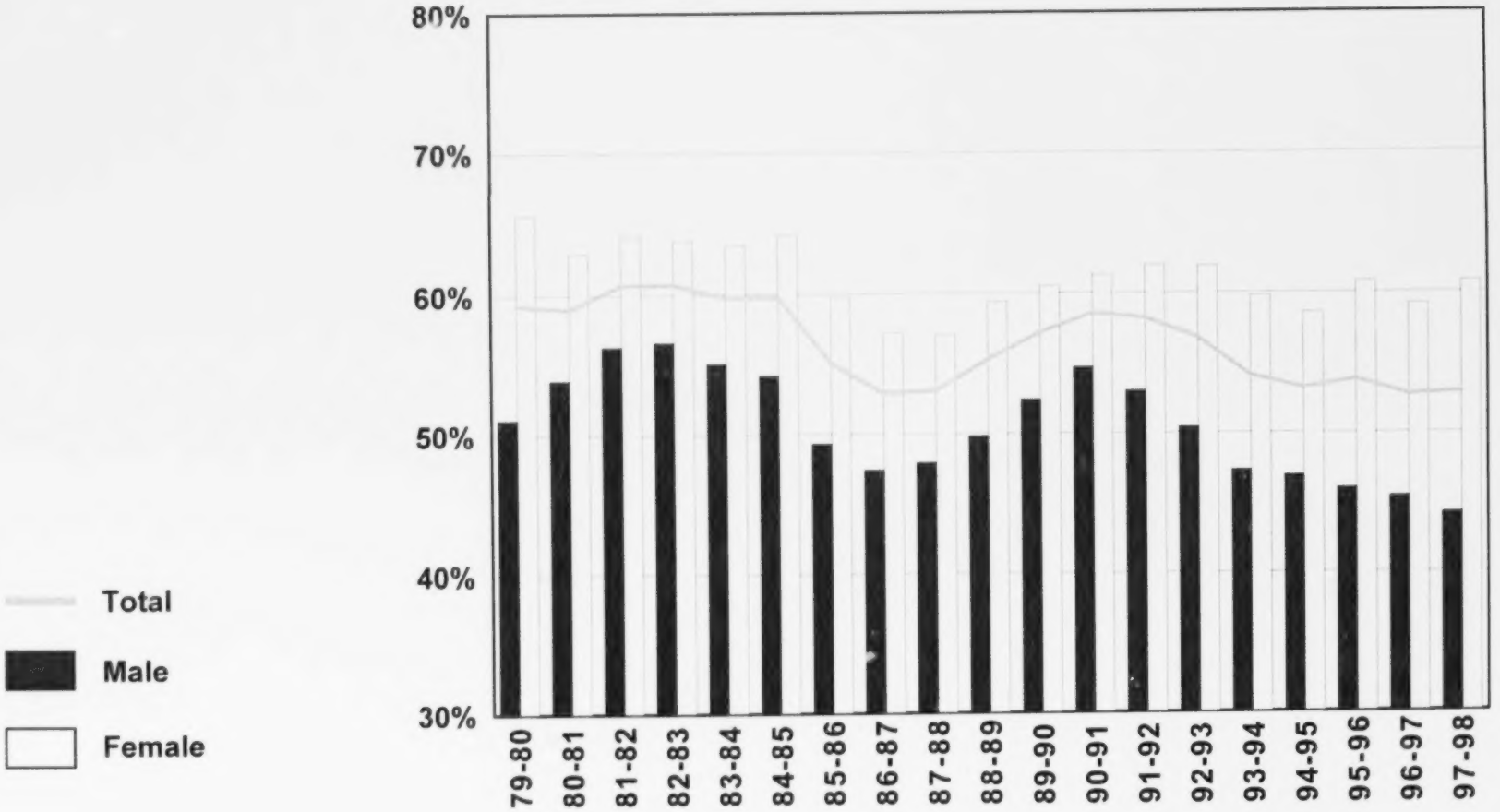
e: Estimates

N/A: Data not available

1. The time elapsed since initial enrollment is not necessarily the same as the duration of studies, because the studies may have been interrupted at some point.
2. Until 1993-1994, this category referred to students who began their studies in pre-university programs. As of 1994-1995, this category also includes students who left technical education (with or without a diploma) after having begun in an Explorations program the previous year.

Graph 3.4

Proportion of students leaving a technical program with a DEC, by gender and last year of enrollment in regular college education (%)



3.5 Duration of Studies in Regular College Education

The duration of studies for holders of a Diplôme d'études collégiales (DEC–diploma of college studies) and for all students (regardless of whether or not they obtain a DEC) has changed very little over the years.[1]

On average, a DEC in pre-university education is obtained after 2.4 years equivalent to full-time study and a DEC in technical education, after 3.8 years.

Holders of a DEC who graduate from pre-university education have studied for an average of 2.4 years. For those who leave without a diploma, the total duration of studies is still an average of 1.5 years. The average duration of studies, whether students leave with or without a diploma, is 2.1 years.[2] For most students, that is, those who began their college studies directly in pre-university programs, the corresponding durations are 0.1 year or less. Students who transferred from another type of program take 3 years to obtain their DEC in pre-university education.

Students in technical programs take an average of 3.8 years to earn a DEC, while those who leave without a diploma do so after 2.1 years. Given the success rate (see Section 3.4), students leaving technical programs study for 3.0 years. Here too, those students who had been enrolled in technical programs right from the beginning of their college studies leave in a shorter time: those who obtained a DEC did so in 3.5 years and those leaving without a diploma did so after 1.8 years. However, students who had initially enrolled in pre-university programs (and who have a higher success rate) or in Explorations programs take 4.4 years to obtain a DEC in technical education.

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1. This is why the results of this section are the averages for college leavers for the last 5 years observed (that is, the averages for students enrolled for the last time from 1993-1994 to 1997-1998). However, in the case of students leaving without a diploma, over a 10-year period, the duration of studies before dropping out has lengthened, by 0.4 full-time terms for pre-university education and 1 full-time term for technical education.
2. The duration of studies for all college leavers depends, on the one hand, on the respective duration of studies of students with a DEC and college leavers without a diploma, and on the other hand, on the weighting of these two categories of students, that is, the success rate. This explains why the duration of studies for all students, whether or not they leave with a diploma, has remained stable, even though the success rates have been dropping and the duration of studies for those leaving without a diploma has been getting longer.

A slight difference in the duration of studies is apparent in the figures for men and women, and according to the status upon leaving. Female graduates study 0.2 years less than their male counterparts. Similarly, women who leave their studies before obtaining a diploma do so sooner (0.1 years) than men. This difference disappears, however, when college leavers overall are considered by gender because more women than men obtain a diploma, which raises the average duration of studies for women overall.

Table 3.5

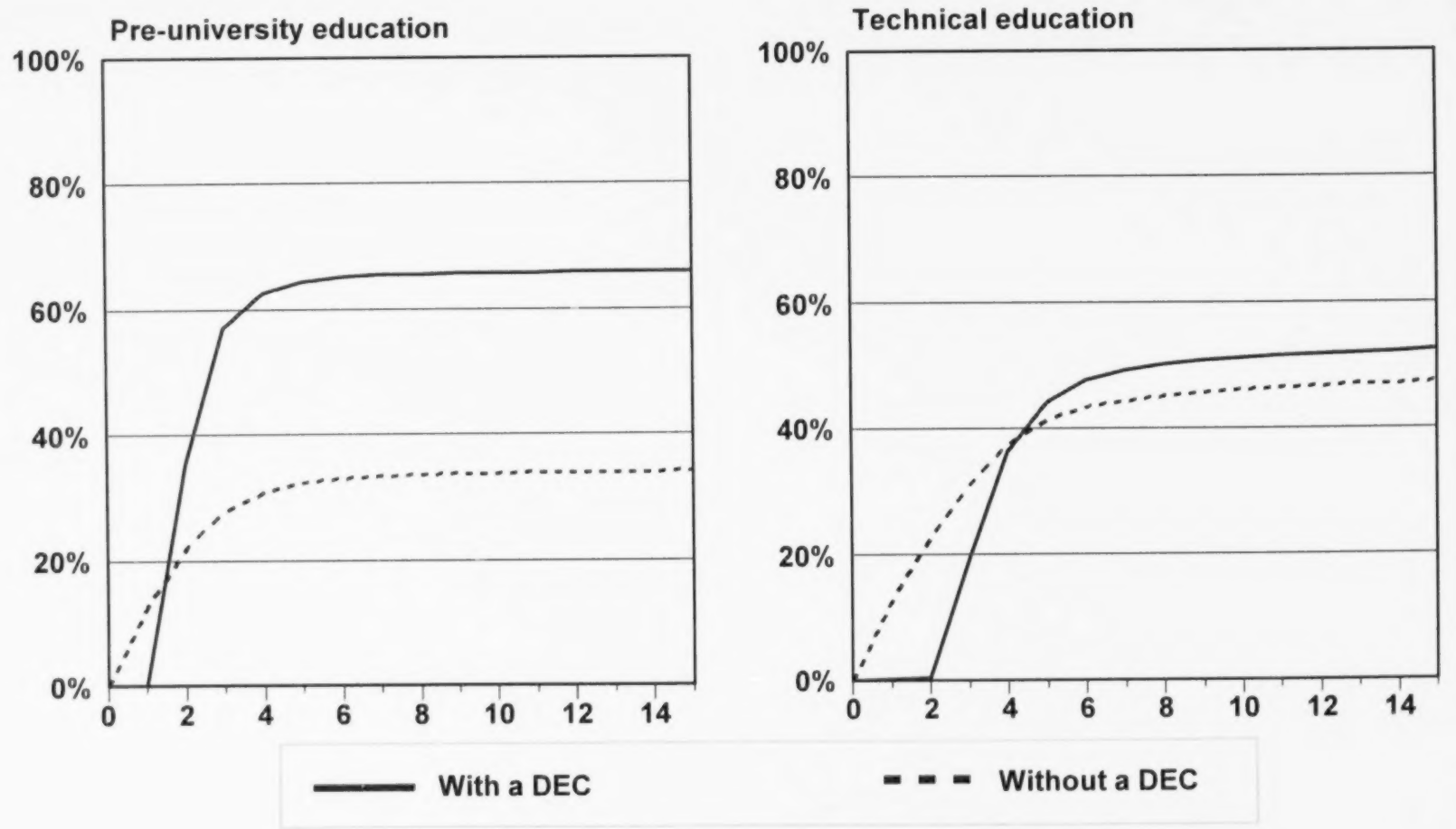
Average number of years[1] of study completed before leaving regular college education (average for all college leavers after 1993-1994), by gender and type of program enrolled in at the start and finish of the studies

	With Degree		Without Degree[2]		Total	
	Pre-university education	Technical education	Pre-university education	Technical education	Pre-university education	Technical education
Male	2.5	3.9	1.5	2.1	2.1	2.9
Female	2.3	3.7	1.4	2.0	2.1	3.0
Total[3]	**2.4**	**3.8**	**1.5**	**2.1**	**2.1**	**3.0**
Type of initial program						
Same	2.4	3.5	1.4	1.8	2.0	2.7
Different[3]	3.0	4.4	2.0	2.8	2.5	3.7

1. One year of full-time study is equivalent here to two full-time terms or eight part-time terms.
2. Refers to students who have interrupted their studies for at least six consecutive terms.
3. Refers to the total duration, including studies undertaken previously in other types of programs.

Graph 3.5

Cumulative school-leaving rates for regular college education between 1993-1994 and 1997-1998, by number of years elapsed since initial enrollment in a program leading to a DEC (%)



3.6 Success[1] and Duration of Studies in Bachelor's Programs

At the end of 1997-1998, 65.3% of students leaving bachelor's programs obtained their degree, or 0.4% fewer than the preceding year. In the 10-year period observed, the graduation rate increased; from 55.9% for students enrolled for the last time in 1987-1988, it reached an all-time high of 65.9% in 1995-1996.

Of 100 students enrolled in a program leading to a bachelor's degree and leaving their program at the end of 1997-1998, 65.3 obtained a degree, after an average of 6.3 full-time terms of study and an additional 2.4 part-time terms.

From the beginning of the period under observation, female students have had a higher success rate than male students, with the difference rising from 0.7 to 5.4 percentage points between 1987-1988 and 1997-1998, after a maximum gap of 7.7 percentage points in 1996-1997. In the last year observed, 67.6% of female students who left a bachelor's program did so with a degree, compared with 62.2% of their male counterparts. This phenomenon, coupled with the fact that more women than men enroll in bachelor's programs (see Section 2.12), explains the difference between the sexes with respect to graduation rates (see Section 5.6).

Graduates of bachelor's programs have studied for an average of 6.3 full-time terms, or for 8.7 terms if no consideration is given to whether they studied full time or part time.[2] Those who leave without a degree spend an average of 2.5 terms full time, or slightly more than one year of study. For all students leaving bachelor's programs, the average duration of studies is 7.1 terms, 4.9 of which are full time.

---

1. Success in university programs leading to a bachelor's degree is measured here by the proportion of new holders of a bachelor's degree among all students leaving the programs with or without a degree. The degrees taken into account are bachelor's degrees obtained during or at the end of the school year in which the student was last enrolled, or the following year, if the student has not re-enrolled in an undergraduate program leading to a bachelor's degree. Students are considered to have left school without a degree when they have been absent for a period of at least two school years following the last year of enrollment.
2. A portion of the studies is done part time and is added to the average duration of full-time studies. The duration of part-time studies is from 2.0 to 2.6 terms for graduates. For those who leave without a degree, the duration of part-time studies is from 1.6 to 2.0 terms. For all school leavers, the duration of part-time studies varies from 1.9 to 2.4 terms.

Differences in the duration of studies are apparent in the figures for men and women, and according to the status upon leaving. Whether women obtain a bachelor's degree or give up their studies without a degree, they do so sooner than men. Women who obtain a bachelor's degree spend 0.7 fewer terms in full-time studies than men, while women who leave their program without a degree do so 0.5 terms sooner than men. Nevertheless, when the duration of studies is considered, regardless of full- or part-time status, the differences between the sexes are not as pronounced, because more women than men study part time. For all students leaving bachelor's programs, the difference between the sexes is less evident, mainly because more women than men obtain a degree, which raises the average duration of studies for women overall.

Table 3.6a

Proportion of students leaving a bachelor's program as graduates, by gender and last year of enrollment (%)

	1987-1988	1990-1991	1992-1993	1995-1996	1996-1997	1997-1998[e]
Male	55.5	59.7	58.0	61.7	61.2	62.2
Female	56.2	63.1	63.8	69.0	68.9	67.6
Total	**55.9**	**61.5**	**61.2**	**65.9**	**65.7**	**65.3**

e: Estimates

Table 3.6b

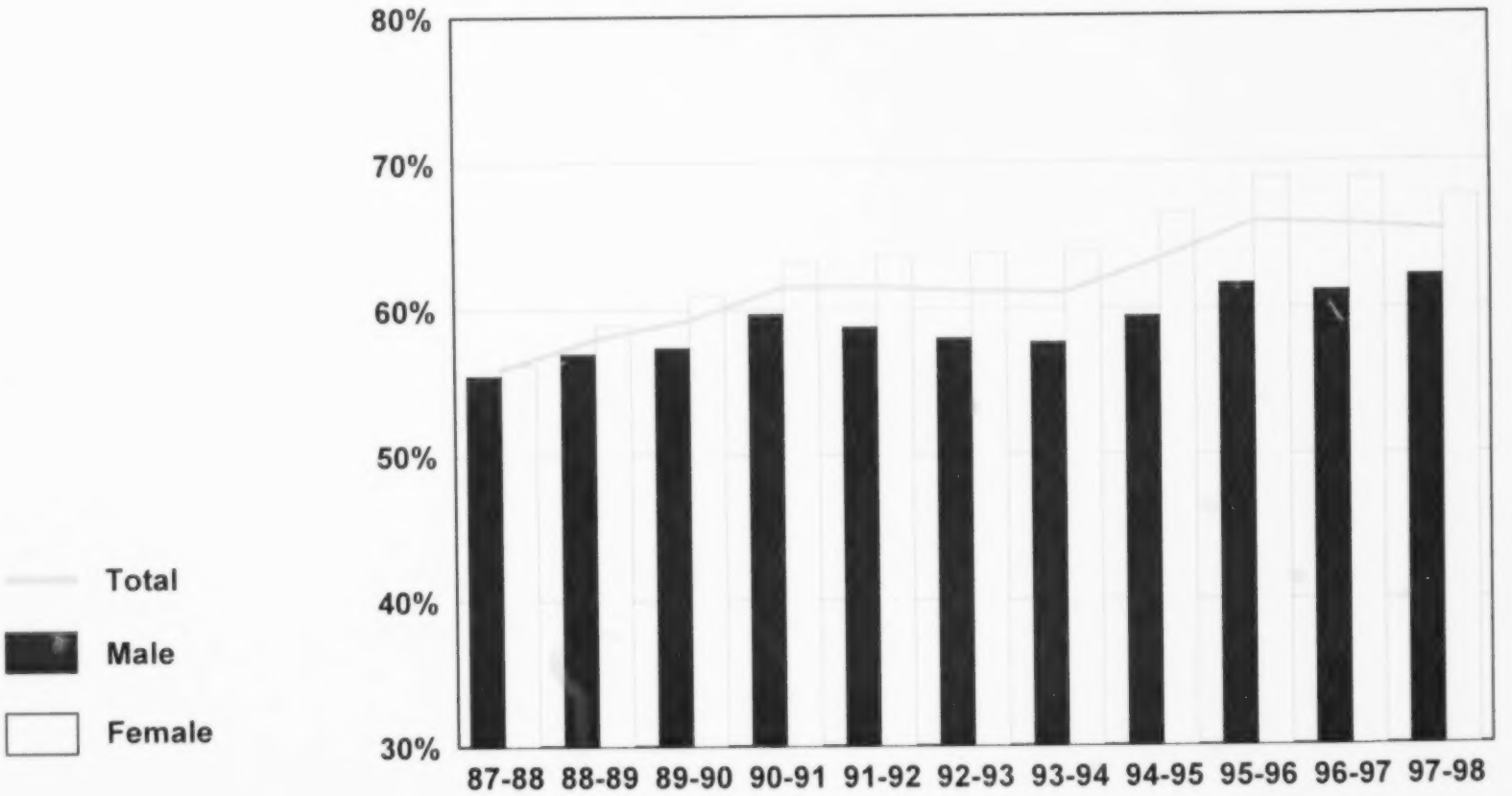
Average number of terms completed before leaving a bachelor's program (average for all leavers after 1993-1994), by gender

	With Degree		Without Degree[1]		Total	
	Full-time	All attendance statuses[2]	Full-time	All attendance statuses[2]	Full-time	All instructional services[2]
Male	6.7	8.9	2.8	4.5	5.1	7.1
Female	6.0	8.5	2.3	4.3	4.7	7.1
Total	**6.3**	**8.7**	**2.5**	**4.4**	**4.9**	**7.1**

1. Refers to students who have interrupted their studies for at least six consecutive terms.
2. Refers to the total duration of full- and part-time studies.

Graph 3.6

Proportion of students leaving a bachelor's program as graduates, by gender and last year of enrollment (%)



3.7 Success[1] and Duration of Studies in Master's Programs

At the end of 1997-1998, 66.0% of students leaving master's programs obtained their degree. This is a gain of 9.9 percentage points over a 10-year period, as well as the highest level recorded for that period.

Of 100 students enrolled in a program leading to a master's degree and leaving their program at the end of 1997-1998, 66 obtained a degree, after an average of 7.8 terms of study.

In 1987-1988, relatively fewer women than men seeking a master's degree pursued their studies to graduation. Since then, women have taken the lead and now have a higher success rate than men. In 1997-1998, 68.0% of women leaving a master's program did so with a degree, for an increase of 13.0 percentage points since 1987-1988. The corresponding increase for men was 6.9 percentage points; in 1997-1998, 63.9% of men leaving a master's program did so with a degree. This phenomenon, coupled with the fact that more women than men enroll in master's programs (see Section 2.12), explains the difference between the sexes with respect to graduation rates (see Section 5.6).

Graduates of master's programs are enrolled for an average of 7.8 terms, regardless of whether they study full or part time.[2] On average, students spend 4.1 terms in full-time studies. The total average duration of studies for students who leave without a degree is 5.3 terms, whether full time or part time. For all students leaving master's programs, the average duration of studies is 6.9 terms, 3.4 of which are full time. The duration of studies referred to here is the actual duration and not the standardized duration used to calculate full-time equivalents (FTEs) for funding purposes, where a standardized duration is generally recognized for a master's program with a thesis. In these cases, the "funded" duration

1. Success in university programs leading to a master's degree is measured here by the proportion of new holders of a master's degree among all students leaving the programs with or without a degree. The degrees taken into account are master's degrees obtained during or at the end of the school year in which the student was last enrolled, or the following year, if the student has not re-enrolled in a graduate program leading to a master's degree. Students are considered to have left school without a degree when they have been absent for a period of at least two school years following the last year of enrollment.
2. A portion of the studies is done part time and is added to the average duration of full-time studies. The duration of part-time studies is from 3.4 to 4.3 terms for graduates. For those who leave without a degree, the duration of part-time studies is from 2.7 to 3.4 terms. For all school leavers, the duration of part-time studies varies from 3.3 to 3.9 terms.

is a maximum of 4 terms (1.5 years in FTEs) for master's programs. However, the actual duration of studies exceeds this standard for all types of statuses. This means that students who leave without a master's degree are in practice fully funded, with the exception of a supplementary amount of $600 that is allocated to universities when the degree is awarded.

Differences in the duration of studies are apparent in the figures for men and women, and according to the status upon leaving. Contrary to what was observed at the college level and in bachelor's programs, women enrolled in master's programs do not take less time than men to obtain their degree. If full-time enrollment only is considered, women certainly leave sooner (with or without a diploma) than men, but women with a master's degree have studied part time for 0.4 terms and women who leave without a master's degree were enrolled part time for 3.4 terms, compared with 3.1 terms for their male counterparts. For all students leaving master's programs, the difference between the sexes is a fairly adequate reflection of what was revealed for students leaving with a degree and students leaving without a degree; the figures for the two types of status are similar for both sexes.

Table 3.7a

Proportion of students leaving a master's program as graduates, by gender and last year of enrollment (%)

	1987-1988	1990-1991	1992-1993	1995-1996	1996-1997	1997-1998[e]
Male	57.0	64.4	64.3	63.7	64.2	63.9
Female	55.0	64.5	65.9	67.5	66.8	68.0
Total	**56.1**	**64.5**	**65.1**	**65.6**	**65.5**	**66.0**

e: Estimates

Table 3.7b

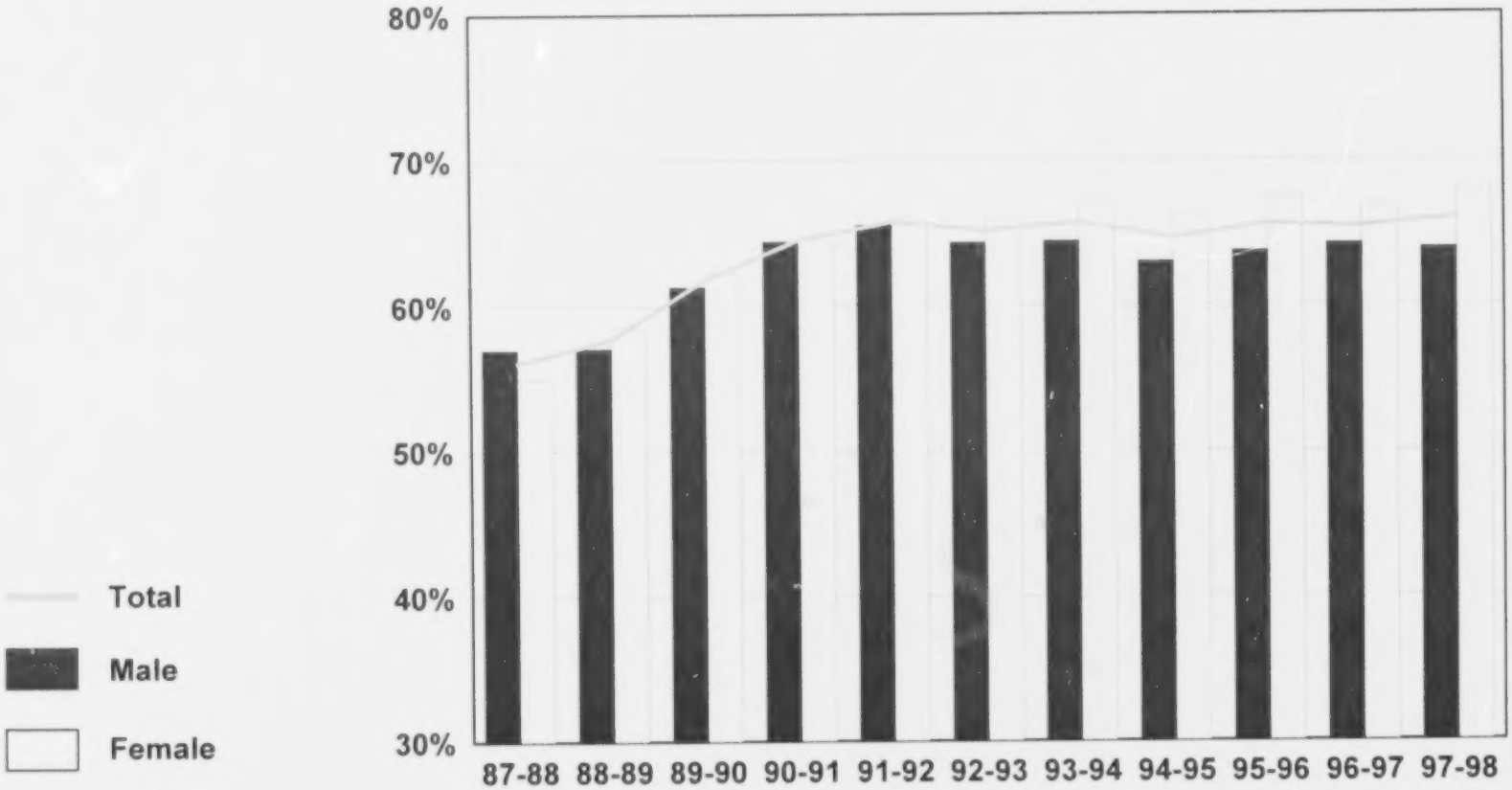
Average number of terms completed before leaving a master's program (average for all leavers after 1993-1994), by gender

	With Degree		Without Degree[1]		Total	
	Full-time	All attendance statuses[2]	Full-time	All attendance statuses[2]	Full-time	All attendance statuses[2]
Male	4.2	7.7	2.2	5.3	3.5	6.8
Female	3.9	7.8	1.9	5.3	3.2	7.0
Total	**4.1**	**7.8**	**2.1**	**5.3**	**3.4**	**6.9**

1. Refers to students who have interrupted their studies for at least six consecutive terms.
2. Refers to the total duration of full- and part-time studies.

Graph 3.7

Proportion of students leaving a master's program as graduates, by gender and last year of enrollment (%)



3.8 Success[1] and Duration of Studies in Doctoral Programs

At the end of 1997-1998, 53.4% of students leaving doctoral programs obtained their degree. Since 1987-1988, this proportion had grown by 9.4 percentage points until 1996-1997, when it stood at 58.1%. In the last year, it dropped by 4.7 percentage points.

Of students enrolled in a doctoral program and leaving their program at the end of 1997-1998, 53.4% obtained a degree after an average of 15.3 terms.

There are still fewer women than men with doctorates. Of the women enrolled in 1997-1998 who left doctoral programs, 48.1% obtained their degree, for an increase of 7.8 percentage points compared with 10 years earlier. For men, the graduation rate increased by 3.5 percentage points in the same period and the proportion of male candidates who completed their studies in 1997-1998 with a degree was 56.6%, or 8.5 percentage points more than for female candidates. This phenomenon, coupled with the fact that more men than women enroll in doctoral programs (see Section 2.12), explains the difference between the sexes with respect to graduation rates (see Section 5.6).

Graduates of doctoral programs are enrolled for an average of 15.3 terms, regardless of whether they study full or part time.[2] On average, students spend 11.2 terms in full-time studies. Those who leave without a degree study for 8.7 terms, whether full time or part time. For candidates overall, whether they leave with or without a degree, they do so after 12.3 terms, of which 8.7 are full time. The duration of studies referred to here is the actual duration and not the standardized duration used to calculate full-time equivalents (FTEs) for funding purposes, where only one standardized duration is recognized. In most cases, the "funded" duration is a maximum of 8 terms (3 years in FTEs) for doctoral programs.

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1. Success in university programs leading to a doctorate is measured here by the proportion of new holders of a doctorate among all students leaving the programs with or without a degree. The degrees taken into account are doctorates obtained during or at the end of the school year in which the student was last enrolled, or the following year, when the student has not re-enrolled in a postgraduate program leading to a doctorate. Students are considered to have left school without a degree when they have been absent for a period of at least two school years following the last year of enrollment.
2. A portion of the studies is done part time and is added to the average duration of full-time studies. The duration of part-time studies is from 3.3 to 5.9 terms for holders of a doctorate. For those who leave without a degree, the duration of part-time studies is from 2.4 to 4.2 terms. For all school leavers, the duration of part-time studies varies from 3.0 to 4.9 terms.

However, the actual duration of studies exceeds this standard for all types of status. This means that students who leave without a doctorate are in practice fully funded, with the exception of a supplementary amount of $1 000 that is allocated to universities when the degree is awarded.

Differences in the duration of studies are apparent in the figures for men and women, and according to the status upon leaving. Contrary to women at the college and undergraduate levels, women enrolled in doctoral programs do not take less time than men to obtain their degree or to give up their studies. If full-time enrollment only is considered, women leave sooner (with or without a diploma) than men, but women with doctorates have studied part time for 1.8 terms more than men, and women who leave without a degree were enrolled part time for 3.4 terms, compared with 2.8 terms for their male counterparts. For all students leaving doctoral programs, the difference between the sexes is less evident, mainly because more men than women obtain a degree, which raises the average duration of studies for men overall.

Table 3.8a

Proportion of students leaving a doctoral program as graduates, by gender and last year of enrollment (%)

	1987-1988	1990-1991	1992-1993	1995-1996	1996-1997	1997-1998[e]
Male	53.1	55.5	55.0	60.9	60.5	56.6
Female	40.3	46.9	51.9	48.9	53.9	48.1
Total	**48.7**	**52.4**	**53.9**	**56.5**	**58.1**	**53.4**

e: Estimates

Table 3.8b

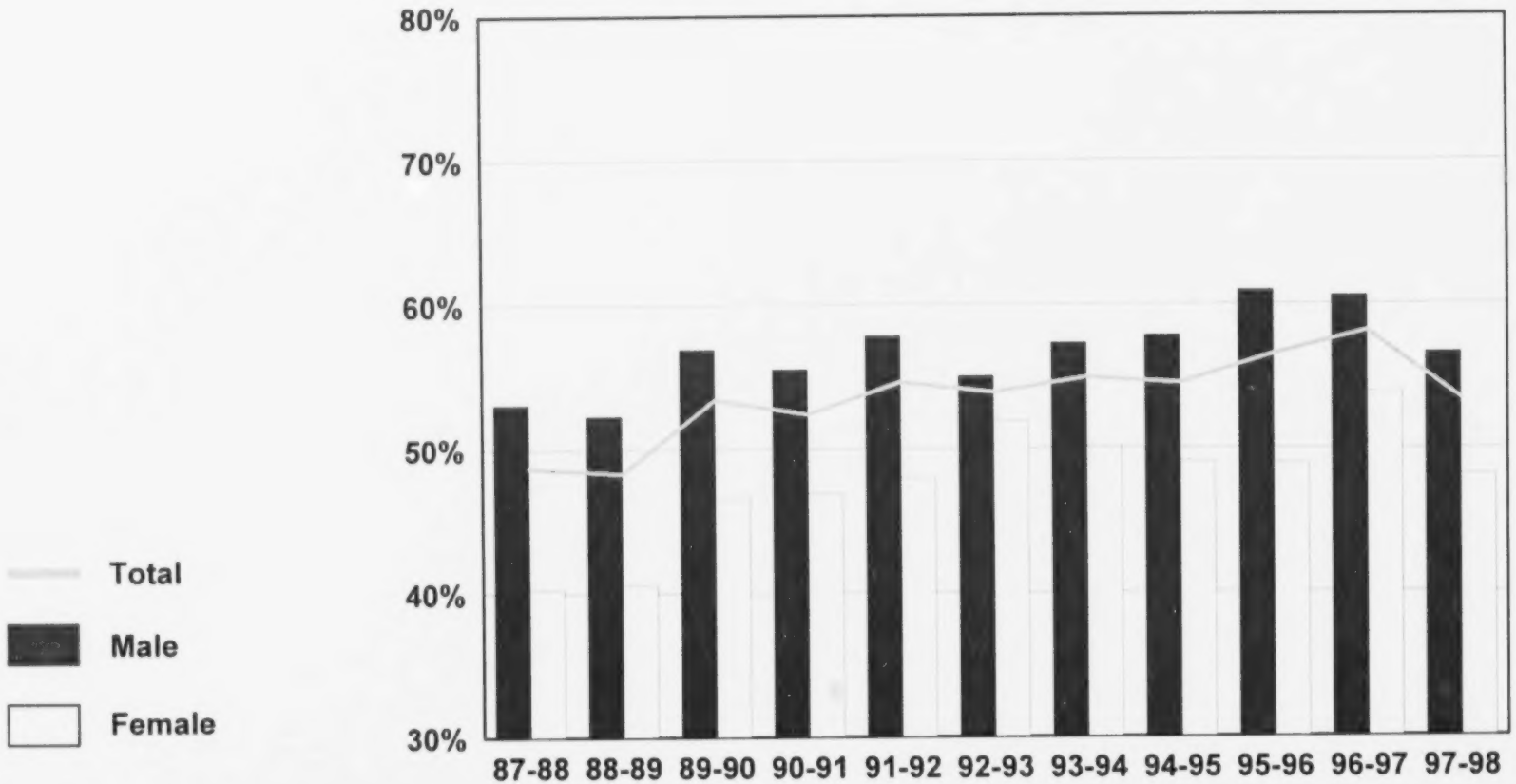
Average number of terms completed before leaving a doctoral program (average for all leavers after 1993-1994), by gender

	With Degree		Without Degree[1]		Total	
	Full-time	All attendance statuses[2]	Full-time	All attendance statuses[2]	Full-time	All attendance statuses[2]
Male	11.3	14.9	5.9	8.7	9.0	12.3
Female	10.8	16.2	5.3	8.7	8.0	12.4
Total	**11.2**	**15.3**	**5.7**	**8.7**	**8.7**	**12.3**

1. Refers to students who have interrupted their studies for at least six consecutive terms.
2. Refers to the total duration of full- and part-time studies.

Graph 3.8

Proportion of students leaving a doctoral program as graduates, by gender and last year of enrollment (%)



4.1 Secondary School Examination Results, by Several Variables–Youth Sector

The Ministère de l'Éducation administers uniform examinations to students in Secondary IV and V for purposes of certification. The average result for the June 1999 examinations was 75.0%.[1] The success rate was 87.8%.

The success rate for the June 1999 secondary school uniform ministry examinations was 87.8%. Overall, female students obtained slightly higher marks than male students.

While female students have a much better record than male students for staying in school, they have no clear advantage over male students with regard to the results obtained on uniform examinations. This is probably because of the higher dropout rate among male students, for it is usually the weaker students who leave school before graduation.

The average mark obtained by students in private schools was 8.6 percentage points higher than the average mark obtained in the public system. The success rate was 86.0% in the public system, compared with 96.4% in the private system. One of the factors likely to explain these differences is that private schools impose selection criteria for admitting students, whereas school boards must accept all students eligible for secondary school.

Students who received instruction in French obtained better results on the examinations than students who studied in English. The average mark of students studying in French was 5.0% higher than that of students studying in English; the success rate of students studying in French was 7.0 percentage points higher than that of students studying in English.

The best results were obtained in the second language; the lowest results were obtained in history and physical science 416.

Female students outperformed male students in French, language of instruction, English, language of instruction, French, second language, and physical science 416. In the other subjects, there was little difference.

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1. This figure is calculated on the basis of the students' final marks. The final mark is made up, in equal proportions, of the student's result on the uniform examination and the "moderated" school mark. "Moderation" is a procedure which renders the marks assigned by different schools comparable by using the results of the uniform examination for each student group as the basis of comparison.

Table 4.1

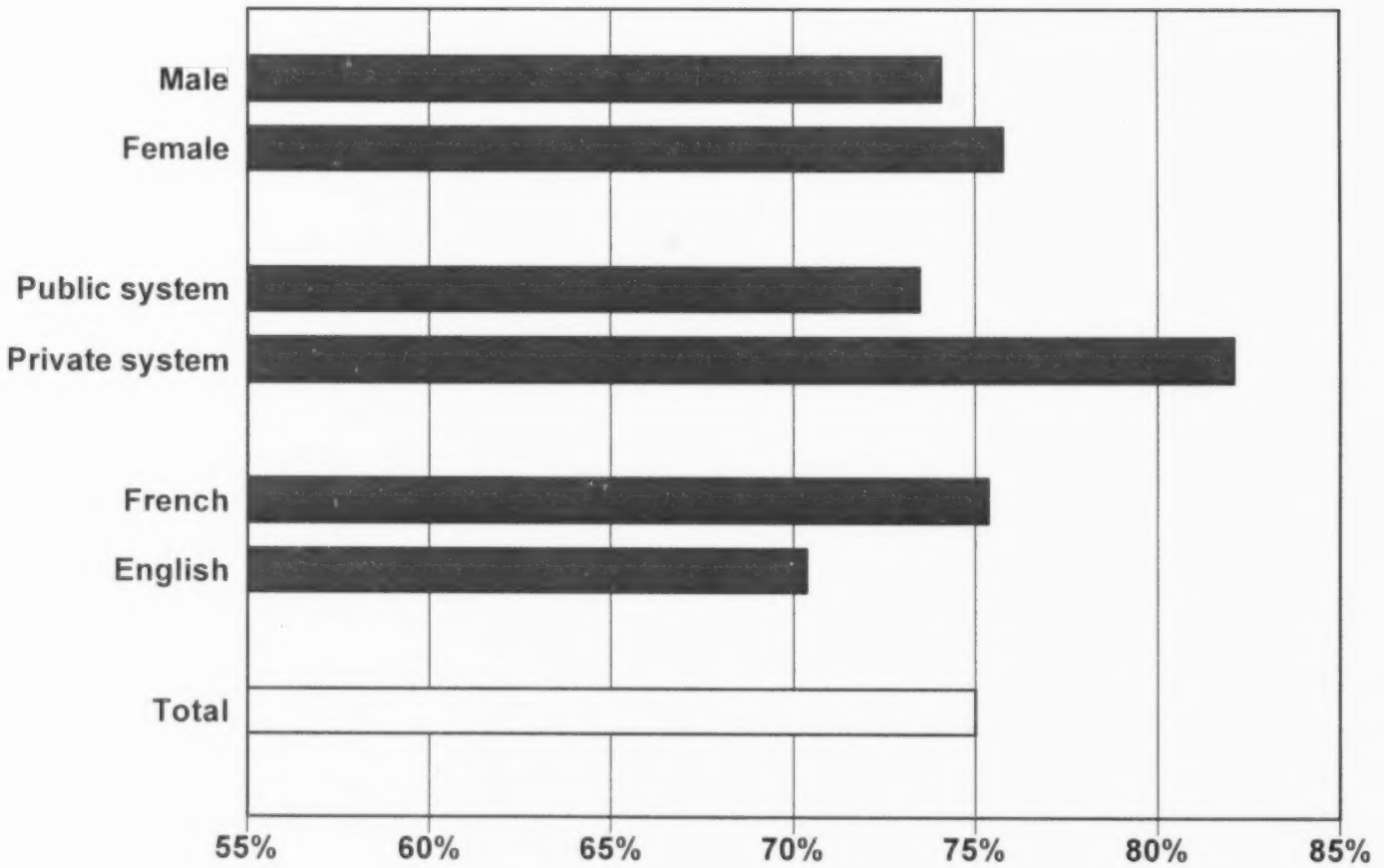
Results on secondary school uniform examinations in the youth sector, by gender, school system, language of instruction and subject: June 1999 (%)

	Average	Success Rate
Male	74.1	87.0
Female	75.8	88.5
Public system[1]	73.5	86.0
Private system	82.1	96.4
Language of instruction: French	75.4	88.4
Language of instruction: English	70.4	81.4
English, language of instruction (Secondary V)	71.8	93.5
English, second language (Secondary IV)	78.2	91.0
English, second language (Secondary V)	81.6	95.9
French, language of instruction (Secondary V)	74.3	93.8
French, second language (Secondary V)	75.3	91.4
History (Secondary IV)	72.1	81.8
Physical science 416 (Secondary IV)	70.8	78.9
Total	**75.0**	**87.8**

1. Excludes the Cree School Board, the Kativik School Board and institutions outside the jurisdiction of the Ministère de l'Éducation.

Graph 4.1

Results on secondary school uniform examinations in the youth sector, by gender, school system and language of instruction: June 1999 (%)



4.2 Regional Disparities in Secondary School Examination Results–Youth Sector

Five administrative regions recorded higher averages and success rates than the overall provincial results on the June 1999 uniform ministry examinations.[1] These regions are Mauricie, Capitale-Nationale, Chaudière-Appalaches, Estrie and Laval. Ranked among the lowest were the Laurentides, Gaspésie–Îles-de-la-Madeleine, Saguenay–Lac-Saint-Jean, Côte-Nord and Nord-du-Québec.

The results of the June 1999 uniform examinations showed a difference of 10.7 percentage points between the success rates of students in the region with the best performance (91.3%) and that of students in the region with the poorest performance (80.6%). The gap narrowed slightly from 1998 to 1999.

Regional disparities diminished slightly from 1998 to 1999. The difference between the highest and lowest averages went from 8.1 to 6.3 percentage points, whereas the gap in the success rates went from 10.8 to 10.7 percentage points.

The results on uniform examinations are not necessarily indicative of the probability of obtaining a secondary school diploma. In some regions, it is possible that a low student retention rate contributes to higher marks on the uniform examinations because the weakest students have dropped out.

1. Results are calculated on the basis of the students' final marks. The final mark is made up, in equal proportions, of the student's result on the uniform examination and the "moderated" school mark. "Moderation" is a procedure which renders the marks assigned by different schools comparable by using the results of the uniform examination for each student group as the basis of comparison.

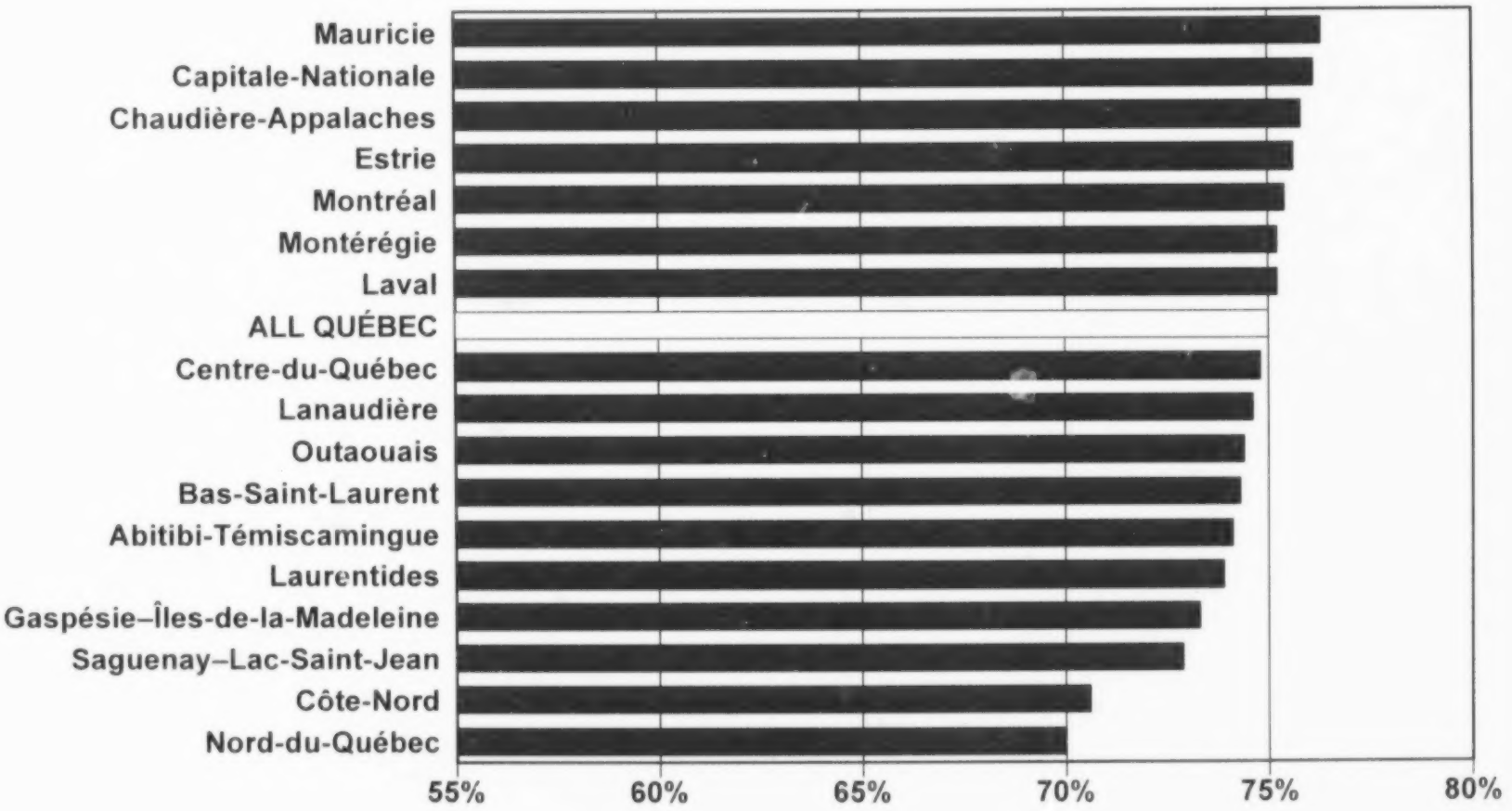
Table 4.2

Results on secondary school uniform examinations in the youth sector, by school administrative region: June 1999 (%)

School Administrative Region	Average	Success Rate
Gaspésie–Îles-de-la-Madeleine	73.3	85.7
Bas-Saint-Laurent	74.3	87.7
Saguenay–Lac-Saint-Jean	72.9	85.9
Capitale-Nationale	76.1	89.8
Chaudière-Appalaches	75.8	90.0
Mauricie	76.3	91.3
Centre-du-Québec	74.8	88.7
Estrie	75.6	89.2
Montérégie	75.2	87.8
Montréal	75.4	87.1
Laval	75.2	88.3
Lanaudière	74.6	87.5
Laurentides	73.9	85.8
Outaouais	74.4	86.0
Abitibi-Témiscamingue	74.1	88.6
Côte-Nord	70.6	80.4
Nord-du-Québec	70.0	80.6
Total	**75.0**	**87.8**

Graph 4.2

Average results on secondary school uniform examinations in the youth sector, by school administrative region: June 1999 (%)



4.3 Secondary V French, Language of Instruction, Examination–Youth Sector

Students who wrote the June 1999 Secondary V French, language of instruction, examination obtained an average mark of 74.3%. The success rate was 93.8%.[1]

The success rate on the June 1999 Secondary V French, language of instruction, examination was 93.8%. Female students obtained significantly higher marks than male students.

The examination consisted of three components: written production, a reading comprehension exercise and an oral expression test. The reading comprehension and oral expression components were under the responsibility of the educational institutions. The results obtained in these sections are not included in Table 4.3. However, they were considered in the calculation of the overall results on the French examination. In written production, which was under the responsibility of the Ministère de l'Éducation, students obtained an average of 76.4% and a success rate of 89.1%.

Whereas there was no significant difference overall between the results obtained by male and female students on the examinations used for purposes of certification (see Section 4.1), female students outperformed male students on the French examination. The average for female students was 5.9 percentage points above that for male students, and the success rate was 5.9 percentage points in favour of female students. In written production, the female students' average was 6.1 percentage points higher than the male students' and their success rate was 8.6 percentage points higher.

The average obtained by private school students surpassed that of public school students by 5.6 percentage points. In the public system, 7.1% of the students failed the ministry examination, compared with 1.9% in the private system. In written production, students in private schools scored higher than students in the public system.

1. Results are calculated on the basis of the students' final marks. The final mark is made up, in equal proportions, of the student's result on the uniform examination and the "moderated" school mark. "Moderation" is a procedure which renders the marks assigned by different schools comparable by using the results of the uniform examination for each student group as the basis of comparison.

Table 4.3

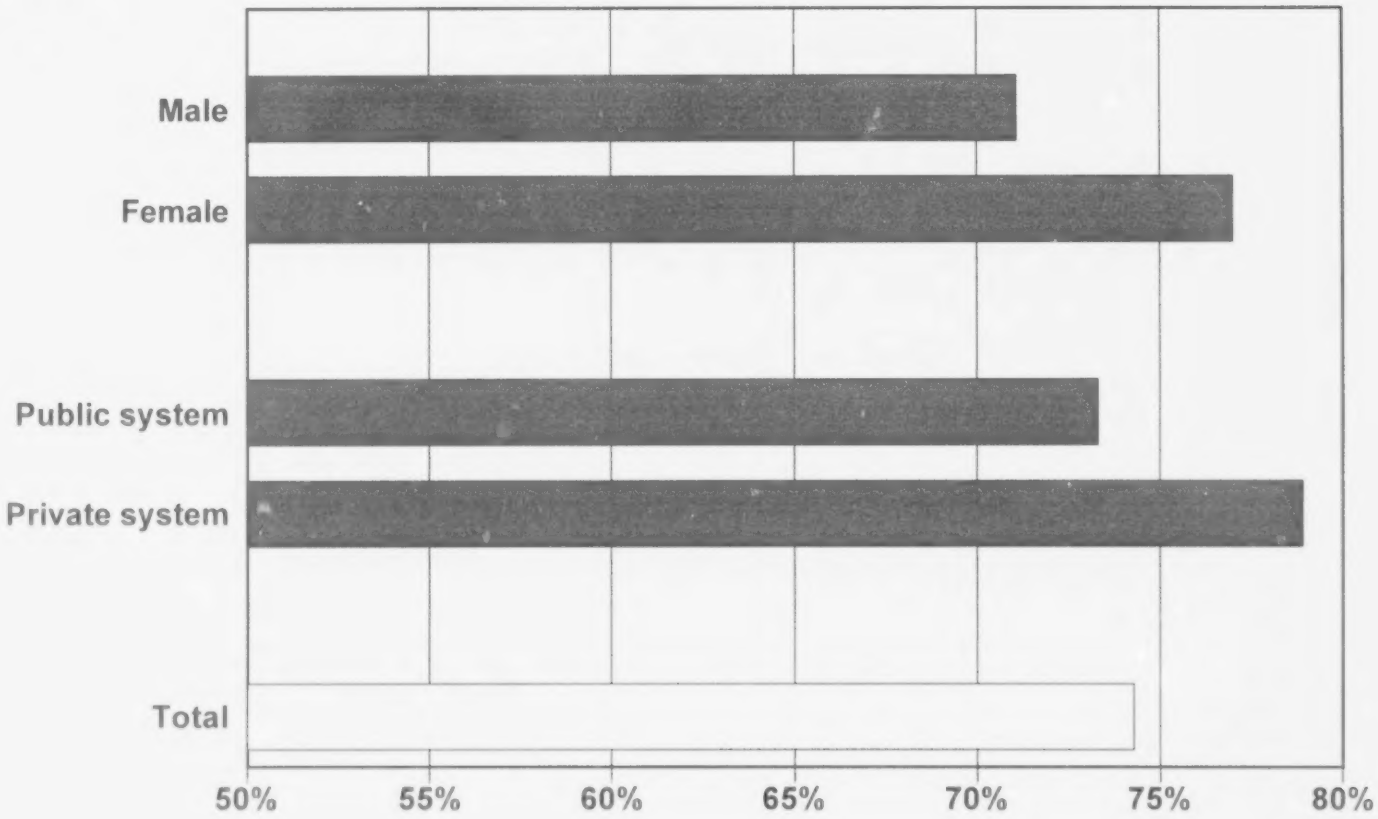
Results on the Secondary V French, language of instruction, examination in the youth sector, by gender and school system: June 1999 (%)

	Written Production		Overall Results	
	Average	Success Rate	Average	Success Rate
Male	73.1	84.5	71.1	90.6
Female	79.2	93.1	77.0	96.5
Public system[1]	75.5	88.0	73.3	92.9
Private system	80.8	94.7	78.9	98.1
Total	**76.4**	**89.1**	**74.3**	**93.8**

1. Excludes the Cree School Board, the Kativik School Board and institutions outside the jurisdiction of the Ministère de l'Éducation.

Graph 4.3

Average results on the Secondary V French, language of instruction, examination in the youth sector, by gender and school system: June 1999 (%)



4.4 Science Achievement Among 13-Year-Olds

Québec Francophone and Anglophone 13-year-olds obtained results similar to those obtained by Canadian students as a whole on a written science examination that was held in the spring of 1999. These examinations were held as part of the School Achievement Indicators Program (SAIP) of the Council of Ministers of Education, Canada.

In 1999, Québec Francophone and Anglophone 13-year-olds obtained results comparable to those obtained by Canadian students as a whole on a science examination.

The students' results were expressed in terms of five levels of performance, each level requiring more extensive knowledge and skills than the preceding level. The same examinations were given to both Francophone and Anglophone students, so that the results obtained by the two groups are comparable.

In Québec, nine out of ten students attained the first level of performance, seven out of ten attained the second level, and six out of ten attained the third level; very few students attained the fourth and fifth levels. These results are comparable to those obtained by Canadian students as a whole.[1] Students in Alberta obtained better results than Francophone students in Québec. Québec Francophone students obtained better results than Francophone students in the other provinces.

As for Québec Anglophone students, nine out of ten attained the first level of performance, seven out of ten attained the second level, and five out of ten attained the third level; very few students attained the fourth and fifth levels. These results are comparable to the results in almost all the other provinces. Students in Alberta and British Columbia achieved better results than Québec Anglophones. However, the latter obtained better results than Francophone students in the other provinces.

The results of Québec Francophones and Anglophones within the scope of this study are comparable to those obtained in a similar study conducted in 1996.

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1. The comparisons of results in this section take into account a margin of error inherent in any result obtained by surveying a sampling of persons.

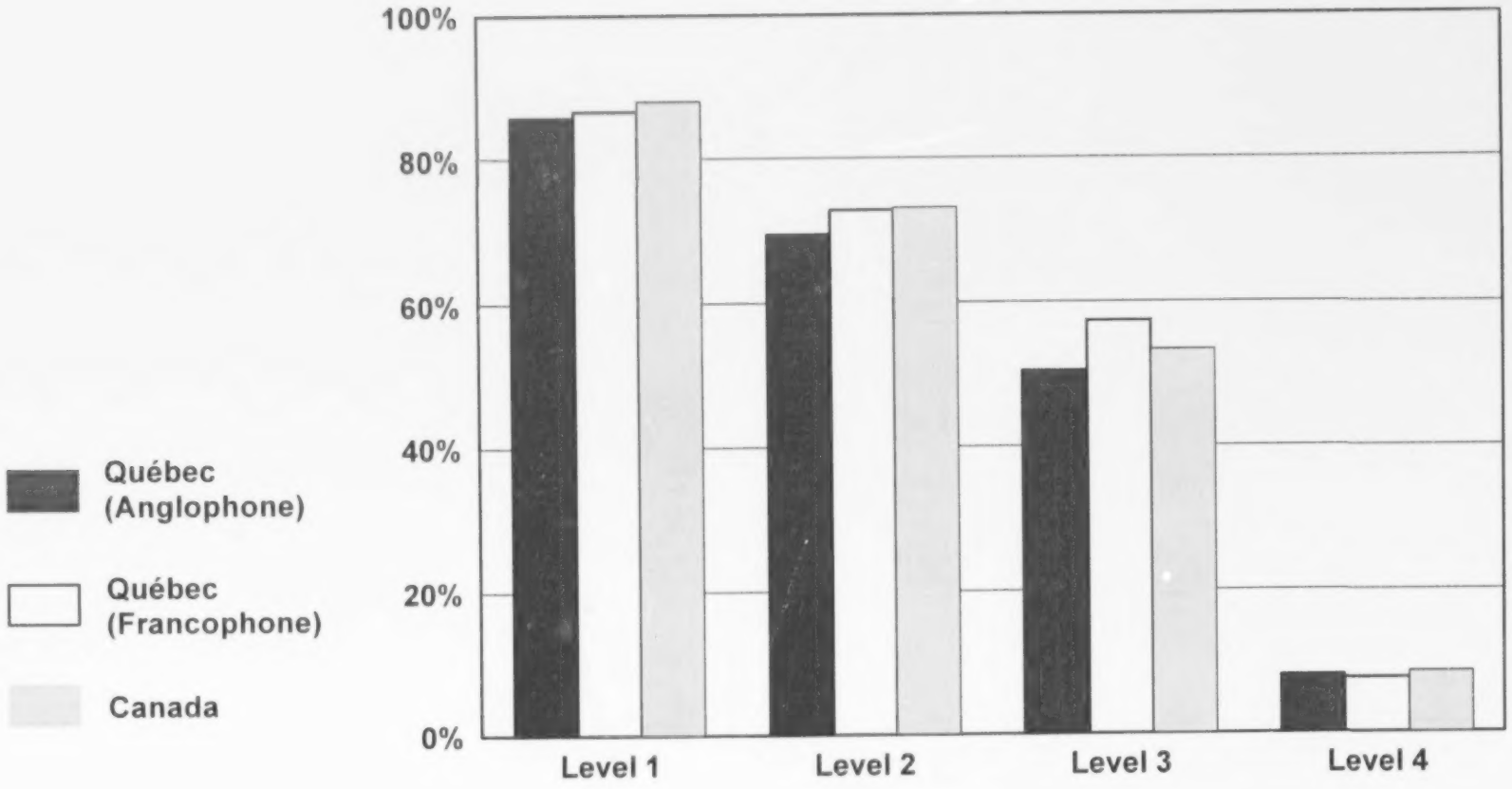
Table 4.4

Performance of 13-year-olds on the SAIP written science examination, by province or territory, Canada: 1999 (%)

	Level of Performance				
	1	2	3	4	5
British Columbia	91.1	76.1	57.9	10.4	1.3
Alberta	90.7	82.5	64.9	14.7	2.7
Saskatchewan	90.8	75.5	52.1	7.8	1.2
Manitoba (Anglophone)	86.6	72.8	53.7	8.5	0.5
Manitoba (Francophone)	70.7	61.2	40.3	2.6	0.2
Ontario (Anglophone)	88.4	72.1	48.4	7.3	0.5
Ontario (Francophone)	74.7	57.2	35.4	3.4	0.0
Québec (Anglophone)	**85.9**	**69.6**	**50.5**	**8.1**	**0.8**
Québec (Francophone)	**86.5**	**72.8**	**57.3**	**7.6**	**0.3**
New Brunswick (Anglophone)	89.7	69.4	49.7	5.5	0.1
New Brunswick (Francophone)	77.5	60.5	38.5	4.3	0.4
Nova Scotia (Anglophone)	89.5	69.5	48.2	7.2	0.1
Nova Scotia (Francophone)	75.0	61.8	40.2	3.9	0.0
Prince Edward Island	90.2	74.3	52.9	7.3	0.2
Newfoundland	83.6	68.0	46.9	5.2	0.7
Nunavut	29.0	17.5	12.1	1.8	0.9
Northwest Territories	67.4	52.2	36.0	3.6	0.4
Yukon	82.9	71.3	55.0	9.8	1.5
Canada (Total)	**88.1**	**73.3**	**53.3**	**8.5**	**0.8**

Graph 4.4

Performance of 13-year-olds on the SAIP science examination, by level: Québec, Canada, 1999 (%)



4.5 Science Achievement Among 16-Year-Olds

In 1999, Québec Francophone 16-year-olds obtained results similar to or slightly higher than those of Canadian students as a whole on a written science examination: their results were comparable to those of Canadian students as a whole, and higher than those of Ontario students on a practical examination.

Québec Francophone 16-year-olds obtained slightly better results than their counterparts in the other provinces on a written science examination that was held in the spring of 1999. As for Québec Anglophone students, they obtained results comparable to their counterparts in the other provinces. Furthermore, Québec 16-year-olds (Francophone and Anglophone) obtained results similar to those obtained by their counterparts in the other provinces on a practical examination that was held in the spring of 1999. These examinations were held as part of the School Achievement Indicators Program (SAIP) of the Council of Ministers of Education, Canada.

The students' results were expressed in terms of five levels of performance, each level requiring more extensive knowledge and skills than the preceding level. The same examinations were given to both Francophone and Anglophone students, so that the results obtained by the two groups are comparable.

In Québec, 95.6% of the Francophone students attained the first level of performance on the written examination, nine out of ten attained the second level, eight out of ten attained the third level, and three out of ten attained the fourth level; very few students attained the fifth level. For the first, second and third levels of performance, these results were slightly better than those of Canadian students as a whole.[1] Alberta students were the only ones to surpass Québec Francophone 16-year-olds for the third, fourth and fifth levels. Québec Francophone students obtained results comparable to those of students in British Columbia, Saskatchewan, Manitoba (Anglophone students) and Prince Edward Island. They obtained better results than their counterparts in the other provinces.

As for Québec Anglophone students, nine out of ten attained the first and second levels of performance, eight out of ten attained the third level, and three out of ten attained the fourth level; very few students attained the fifth level. Alberta

1. The comparisons of results in this section take into account a margin of error inherent in any result obtained by surveying a sampling of persons.

students obtained better results than Québec Anglophone students for all levels of performance, while students in Québec (Francophone) and Prince Edward Island obtained better results for the second level. Québec Anglophone students obtained better results than Francophone students in Manitoba, Ontario and New Brunswick.

The results of Québec Francophone and Anglophone students were better than those obtained in a similar examination held in 1996, especially for the third, fourth and fifth levels.

During this study, students were also given a practical examination. Results are available for 16-year-olds in Québec, Saskatchewan and Canada as a whole, without consideration of linguistic differences, as well as for Ontario Anglophone and Francophone students. Almost all Québec Francophone students attained the first two levels of performance (98.3% and 97.3%, respectively), 78.7% attained the third level, 41.9% attained the fourth level, and 18.2% attained the fifth level. These results were comparable to those of students in Canada as a whole and Saskatchewan; they were better than those obtained by Francophone and Anglophone students in Ontario.

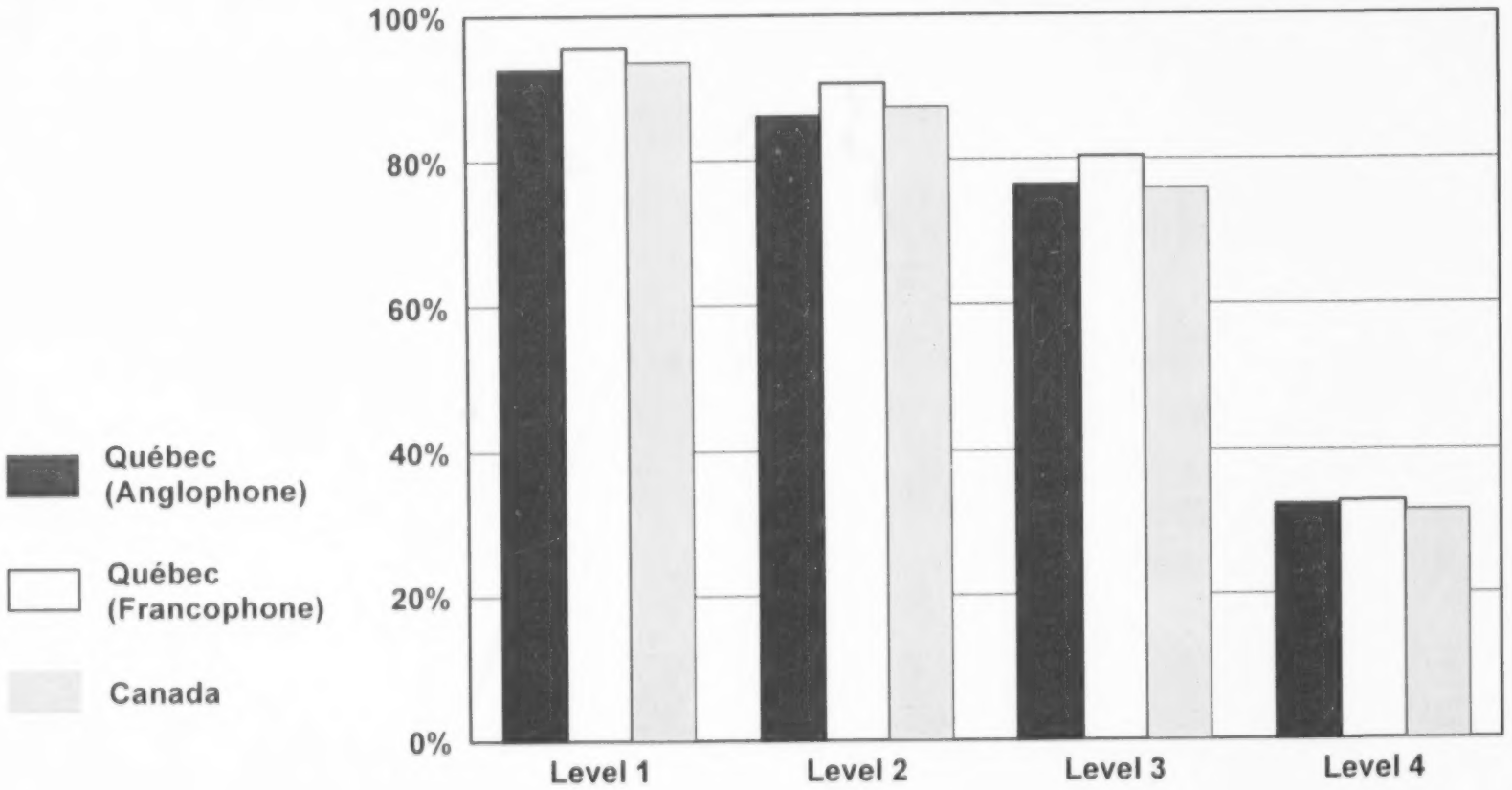
Table 4.5

Performance of 16-year-olds on the SAIP written science examination, by province or territory: Canada, 1999 (%)

	Level of Performance				
	1	2	3	4	5
British Columbia	93.2	87.6	75.8	29.5	3.9
Alberta	96.9	93.3	85.8	49.8	11.8
Saskatchewan	94.3	87.8	77.4	28.8	4.9
Manitoba (Anglophone)	95.2	90.2	79.8	35.5	6.4
Manitoba (Francophone)	92.5	89.4	76.2	21.9	2.6
Ontario (Anglophone)	92.5	84.8	72.2	28.0	4.9
Ontario (Francophone)	86.6	76.0	60.1	18.1	2.6
Québec (Anglophone)	**92.7**	**86.3**	**76.7**	**32.4**	**7.0**
Québec (Francophone)	**95.6**	**90.6**	**80.5**	**32.8**	**5.7**
New Brunswick (Anglophone)	90.9	83.7	72.6	28.3	3.5
New Brunswick (Francophone)	89.7	80.6	69.4	19.4	2.6
Nova Scotia (Anglophone)	92.8	86.5	74.6	29.5	3.8
Nova Scotia (Francophone)	89.3	83.3	73.8	38.1	2.4
Prince Edward Island	95.9	92.0	81.3	35.9	6.7
Newfoundland	89.4	82.0	72.7	30.4	5.6
Nunavut	51.6	33.3	23.8	7.1	1.6
Northwest Territories	88.5	79.9	67.8	29.4	4.0
Yukon	90.9	86.2	74.0	38.2	7.5
Canada (Total)	**93.6**	**87.3**	**76.1**	**31.6**	**5.6**

Graph 4.5

Performance of 16-year-olds on the SAIP science examination, by level: Québec, Canada, 1999 (%)



5.1 Level of Graduation Upon Leaving the Education System

The main data pertaining to diplomas obtained at the various levels of education appears in the diagram on page 9 and is presented in more detail in the following sections. Organized in a different way,[1] this data may also show the distribution of a cohort of school leavers according to the highest diploma earned.[2]

In 1997-1998, 60.2% of those leaving the education system graduated with a bachelor's degree or a diploma in technical or vocational education.

Between 1975-1976 and 1997-1998, graduation rates at the secondary and university levels rose at a rapid pace for both men and women. The increase in the proportion of new graduates with bachelor's degrees (from 14.9% to 26.6%) was accompanied, at the other extreme, by a drop of more than one half in the proportion of those leaving school without a diploma (from 43.0% to 19.2%). This decline has resulted in a significant increase in all the other categories.

Thus, the proportion of school leavers who are not prepared for the labour market, that is, persons without a diploma or with only a Secondary School Diploma (SSD) in general education or a pre-university DEC (including DECs without mention) was 64.6% in 1975-1976 and dropped to 39.7% in 1997-1998. This decline of 24.9 percentage points is reflected by increases of 11.7 percentage points in the proportion of graduates with a bachelor's degree and 13.2 percentage points in the proportion of holders of vocational or technical education diplomas (9.1 and 4.1 percentage points, respectively).

---

1. It is assumed that the diplomas awarded at a given level are preceded by a diploma at a lower level. For example, the number of bachelor's degrees should be a subset of the number of DECs; it follows that the surplus of DECs in relation to the bachelor's degrees would represent the number of DECs that are not followed by a university degree. For this reason, there are no persons with a DEC in pre-university education or without mention as a last diploma in 1975-1976 and 1995-1996. An additional hypothesis makes it possible to estimate the number of DECs in technical education that are followed by a bachelor's degree. It is also assumed that secondary vocational education diplomas are not followed by another higher-level diploma. Partial studies at a given level are grouped with the diploma immediately below: for example, uncompleted college studies are considered with the SSDs in general education.
2. This level of schooling is different from the level for the general population as indicated in the census, the latter being primarily a historical reflection of all the generations in question. The level measured here is the schooling for persons currently leaving the education system. It also shows what the general state of schooling would be if current trends were to continue.

A glance at the situation according to gender highlights the disparities already observed in the schooling of men and women. One and one half times more women than men graduate with a bachelor's degree or with a college diploma in technical education (46.3% compared with 30.0%), while roughly half as many women as men leave school without a diploma (11.8% compared with 26.3%).

Table 5.1

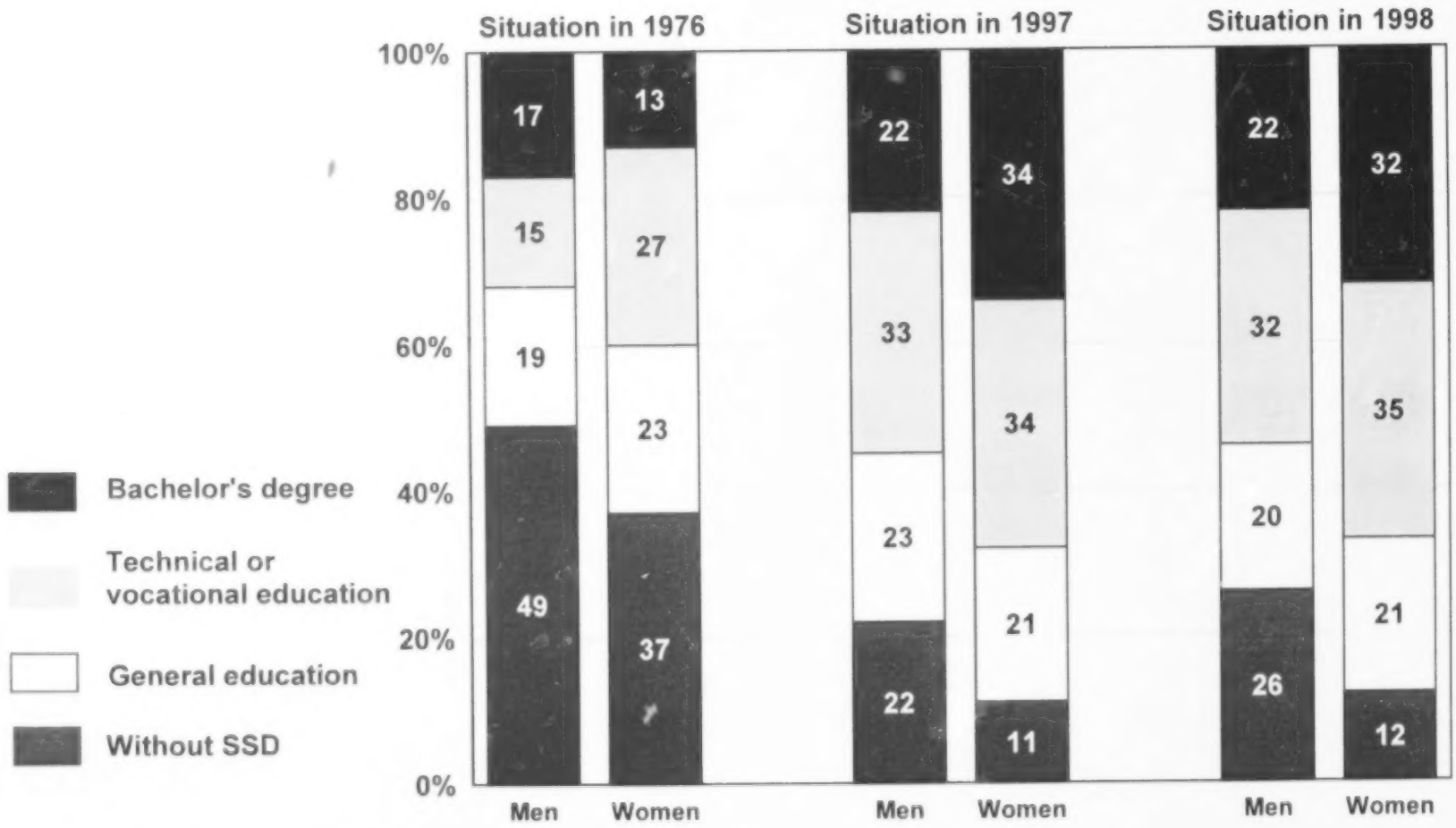
Distribution of school leavers, by highest diploma earned (%)

	1975-1976	1985-1986	1990-1991	1995-1996	1996-1997	1997-1998
Bachelor's degree[1]	14.9	19.0	23.6	29.0	28.1	26.6
College diploma in technical education[2]	7.4	11.2	10.3	11.1	11.0	11.5
Secondary vocational education diploma[3]	13.1	17.7	13.7	19.4	22.1	22.2
DEC or SSD (general education)	21.6	31.3	28.8	28.4	21.9	20.5
No diploma	43.0	20.8	23.6	12.0	16.9	19.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

1. Figures for university are based on the calendar year in which the school year ends.
2. The diplomas considered here are the DEC in technical education, the Attestation d'études collégiales (AEC–attestation of college studies) until 1984, the Certificat d'études collégiales (CEC–certificate of college studies) and the Diplôme de perfectionnement de l'enseignement collégial (DPEC–diploma of advanced college studies).
3. The diplomas considered here are the Short Vocational Diploma, the Long Vocational Diploma, the Secondary School Vocational Certificate (SSVC), the Diploma of Vocational Studies (DVS), the Attestation of Vocational Specialization (AVS), the Attestation of Vocational Education (AVE) and other secondary school diplomas (SSDs) with mention of vocational specialty.

Graph 5.1

Distribution of school leavers, by highest diploma earned (%)



5.2 Graduation From Secondary School–Youth and Adult Sectors

The probability of obtaining a secondary school diploma[1] in 1998-1999 was 83.6%, up 3 percentage points from 1997-1998. Although this figure is lower than the peak of 88.0% observed in 1995-1996, it is the highest in the last three years.

In 1998-1999, the probability of obtaining a first secondary school diploma in the youth or adult sector was 83.6%, that is, the same level as observed in 1996-1997.

The increase in enrollment in Cycle Two of secondary education (see Section 2.4) and the drop in enrollment in general education in the adult sector (see Section 2.6) seem to indicate that the probability of obtaining a secondary school diploma will be relatively stable in the next few years.

In 1998-1999, for students in the youth sector and under 20 years of age in the adult sector in Québec, the probability of obtaining a secondary school diploma was 72.0%, up by almost 3 percentage points from the previous year. The Ministère's objective is to reach a rate of 85% by the year 2010.

The graduation rate discussed here applies primarily to general education. Later (in Section 5.4) it will be seen that the graduation rate for vocational education increased in 1998-1999. The present section is primarily concerned with the first diplomas obtained.[2] It might be interesting to note that in 1998-1999, 92.6% of all the diplomas earned were first diplomas obtained in general education. This proportion was 98.3% if only diplomas obtained in the youth sector or by students under 20 years of age in the adult sector are considered.

The temporary slump in the graduation rate between 1986 and 1990 was largely due to the raising of the pass mark from 50% to 60%, which has made the diploma more valuable, yet more difficult to obtain. Students seem to have overcome this obstacle since 1989, and the graduation rate continued to rise for a number of years. As noted, however, the graduation rate is still lower than in 1995-1996.

---

1. The probability of obtaining a first secondary school diploma is determined by grouping the first diplomas obtained at the secondary level in general and vocational education. This indicator is a measure of the proportion of a generation that stays in school until a secondary-level diploma is earned.
2. Figures do not include the second or third vocational education diploma that a student may have earned, vocational education diplomas received after a general SSD, or SSDs obtained after a vocational education diploma.

The probability of graduating from secondary school is greater for female students than for male students. The gap between the sexes was nearly 18 percentage points in 1989-1990, and 14 percentage points in 1998-1999.

The graduation rate for female students remained above 90% between 1991-1992 and 1995-1996, but dropped back to this level in 1998-1999. For male students, it passed the 80% mark in 1995-1996, but dropped back to 77.0% in 1998-1999.

Table 5.2

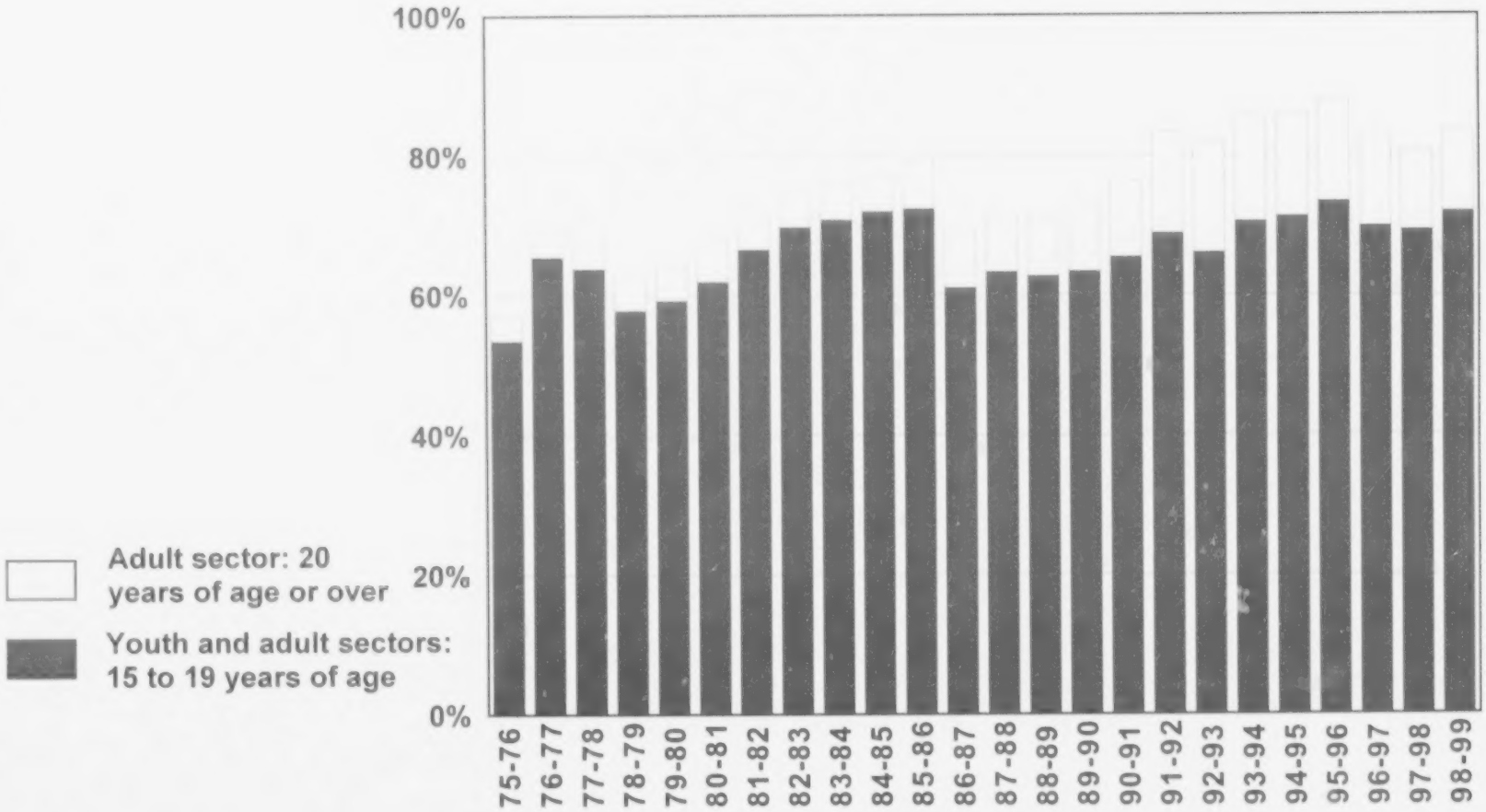
Probability of obtaining a secondary school diploma from either the youth or the adult sector, by gender (%)

	1975-1976	1985-1986	1995-1996	1997-1998	1998-1999[e]
Male					
Youth sector	47.4	66.5	64.1	58.7	62.3
Youth and adult sectors: 15 to 19 years of age	48.2	67.1	67.0	61.8	65.3
Youth and adult sectors: all ages	**51.2**	**73.1**	**81.4**	**73.7**	**77.0**
Female					
Youth sector	58.5	77.3	77.0	74.0	76.1
Youth and adult sectors: 15 to 19 years of age	59.1	78.0	80.2	77.2	79.1
Youth and adult sectors: all ages	**63.1**	**85.6**	**95.0**	**88.2**	**90.5**
Total					
Youth sector	52.9	71.8	70.4	66.1	69.0
Youth and adult sectors: 15 to 19 years of age	53.5	72.4	73.4	69.3	72.0
Youth and adult sectors: all ages	**57.0**	**79.2**	**88.0**	**80.8**	**83.6**

e: Estimates

Graph 5.2

Probability of obtaining a secondary school diploma in either the youth or the adult sector (%)



5.3 Graduation From Secondary School: Regional Disparities–Youth and Adult Sectors

The regional statistics in this section[1] must be interpreted with great caution. For example, the figures vary enough for the ranking of the administrative regions, shown in Graph 5.3, to change considerably from one year to the next. However, an analysis of the statistics of the last few years seems to indicate that the regions of Saguenay–Lac-Saint-Jean, Capitale-Nationale, Bas-Saint-Laurent, Chaudière-Appalaches and Estrie are those that usually obtain the highest results, while the regions of Outaouais and Nord-du-Québec obtain the lowest results.

In 1998-1999, for 13 of the 17 administrative regions of Québec, the probability of obtaining a first secondary school diploma surpassed 80%. Only two regions were above 90%: Saguenay–Lac-Saint-Jean and Capitale-Nationale.

The increase in the graduation rate for secondary school observed in Québec as a whole in 1998-1999 is common to almost all the administrative regions. The increases observed sometimes reached 6 percentage points (Mauricie) compared with 1998-1999. The graduation rate in Québec rose by an average of nearly 3 percentage points.

Graph 5.3 shows the relative share of the secondary school diplomas in the youth sector and the adult sector with respect to the graduation rate for each administrative region. For example, the probability of obtaining a first secondary school diploma for the province as a whole (83.6%) is broken down as follows: 72.0% for the youth sector and adults under the age of 20, and 11.6% for adults 20 years of age or over.

1. Refers to the probability of obtaining a first secondary school diploma. The probability of obtaining a first secondary school diploma is determined by grouping the first diplomas obtained at the secondary level in general and vocational education. This indicator measures the proportion of a generation that stays in school until a secondary-level diploma is earned.

Table 5.3

Probability of obtaining a first secondary school diploma, by administrative region (%)

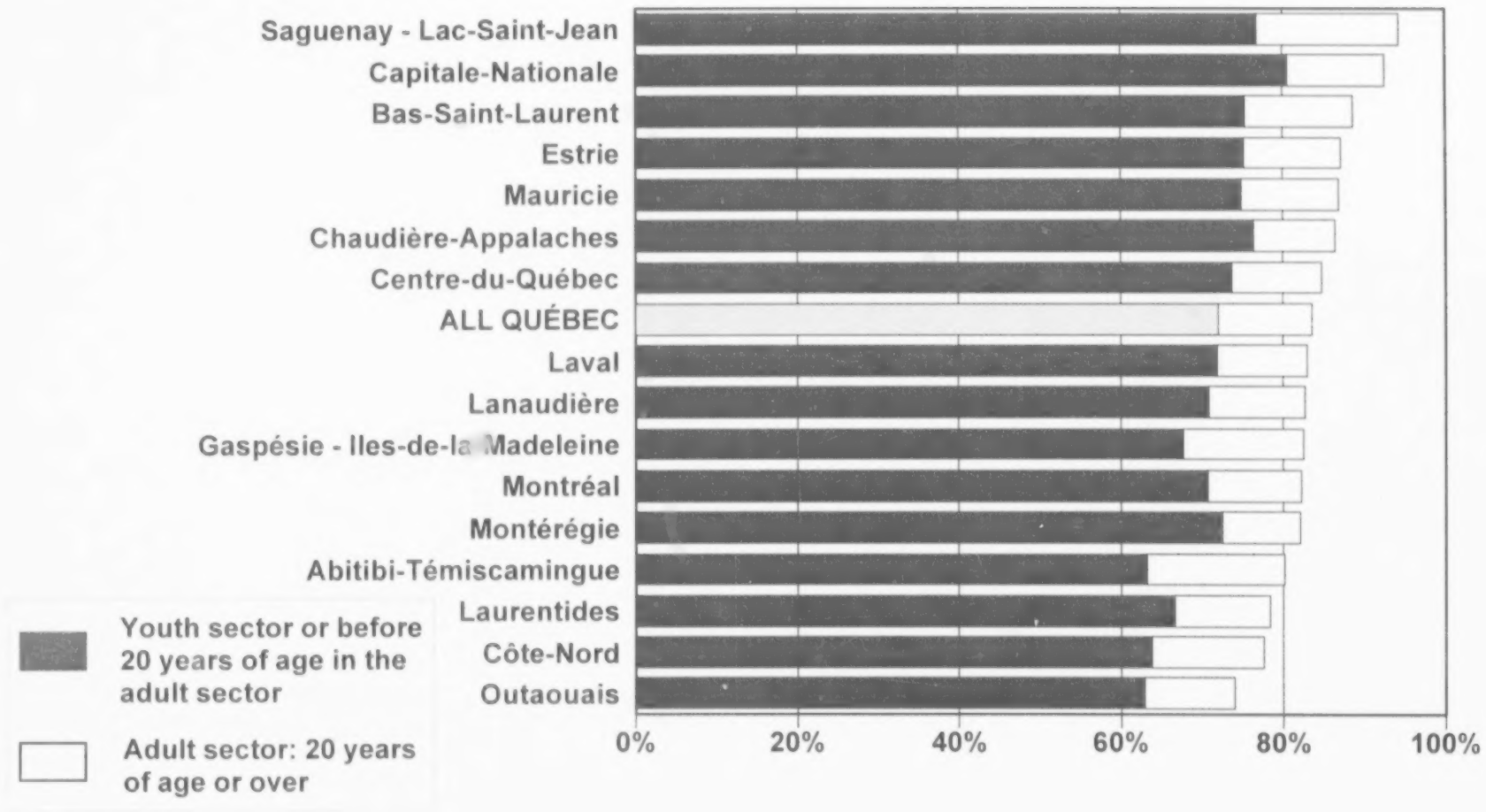
	1990-1991			1998-1999[e]		
	Youth sector or before 20 years of age in the adult sector	Adult sector: 20 years of age or over	Total	Youth sector or before 20 years of age in the adult sector	Adult sector: 20 years of age or over	Total
Gaspésie–Îles-de-la-Madeleine	60.8	19.1	79.9	67.6	14.9	82.5
Bas-Saint-Laurent	69.8	17.1	86.8	75.3	13.3	88.5
Saguenay–Lac-Saint-Jean	65.7	19.5	85.1	76.8	17.5	94.3
Capitale-Nationale	72.6	11.6	84.2	80.5	12.0	92.5
Chaudière-Appalaches	71.4	11.4	82.8	76.3	10.1	86.4
Mauricie	66.2	10.4	76.6	74.8	12.0	86.7
Centre-du-Québec	67.5	13.0	80.5	73.6	11.2	84.8
Estrie	69.5	12.8	82.3	75.1	12.1	87.3
Montérégie	66.6	8.6	75.1	72.5	9.5	82.0
Montréal	64.5	9.0	73.5	70.7	11.5	82.2
Laval	65.7	9.1	74.8	71.9	11.1	83.0
Lanaudière	63.6	10.7	74.2	70.8	11.8	82.6
Laurentides	60.5	9.1	69.6	66.6	11.7	78.2
Outaouais	54.0	13.7	67.7	62.9	11.1	74.0
Abitibi-Témiscamingue	54.0	18.1	72.1	63.2	16.9	80.1
Côte-Nord	55.9	15.2	71.2	63.8	13.8	77.6
Nord-du-Québec	N/A	N/A	N/A	N/A	N/A	N/A
All Québec	**65.4**	**11.1**	**76.5**	**72.0**	**11.6**	**83.6**

e: Estimates

N/A: Data not available. In the case of Nord-du-Québec, the data has too many random variations: the rates calculated are not reliable and would not accurately reflect the region's situation.

Graph 5.3

Probability of obtaining a first secondary school diploma, by administrative region: 1998-1999 (%)



5.4 Graduation From Secondary Vocational Education–Youth and Adult Sectors

Based on behaviours observed in 1998-1999, 23 out of 100 young Quebeckers can expect to obtain a vocational education diploma[1] in secondary school.[2] This group includes 16 persons who already have a first Secondary School Diploma (SSD) in general education. Since the beginning of the vocational education reform in 1987-1988, a growing number of persons obtaining a vocational diploma are doing so after earning a diploma in general education.

The proportion of a generation of students obtaining a secondary school vocational education diploma was 23.2% in 1998-1999. This is almost identical to the graduation rate in 1982-1983, which was the highest ever recorded.

Moreover, the probability of obtaining a first secondary school diploma from the youth sector or before the age of 20 in the adult sector through vocational education was 1.7% in 1998-1999; this rate was higher than 16% in 1977-1978. This confirms that obtaining a first diploma in vocational education is becoming less common and that students in the youth sector or those under the age of 20 in the adult sector who obtain a first secondary school diploma (72.0% in 1998-1999) are most likely to do so in general education (see Section 5.2).

The very nature of vocational education diplomas has also changed. Short vocational programs have been phased out in favour of general education. The basic difference between the Diploma of Vocational Studies (DVS) and its predecessor, the Long Vocational Diploma, is that the DVS deals exclusively with vocational education, since all the components of the vocational programs dealing with general education have been transferred to the SSD.

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1. The diplomas considered here are the Short Vocational Diploma, the Long Vocational Diploma, the Secondary School Vocational Certificate (SSVC), the Diploma of Vocational Studies (DVS) (known as the Secondary School Vocational Diploma–SSVD prior to 1998), the Attestation of Vocational Specialization (AVS), the Attestation of Vocational Education (AVE) and other secondary school diplomas (SSDs) with mention of vocational specialty.
2. Refers to the probability of obtaining a first secondary school diploma. This rate is determined by grouping only the first secondary school diplomas in vocational education. This indicator measures the proportion of a generation that stays in school until a secondary-level diploma is earned in vocational education.

The difference between male and female students is much less pronounced than in general education. Nevertheless, vocational education represents a larger share of the graduation rate for male students (24.6%) than for female students (21.6%).

In 1994-1995, 4 655 vocational education diplomas[3] were granted to students under the age of 20. The Ministère's objective is to quadruple this number before the year 2000, that is, to award 18 500 diplomas. In 1997-1998, 6 855 diplomas were awarded.

3. All vocational education diplomas are considered here, be they the first, second, third, and so on, earned by a student. The other statistics in this section deal only with the first vocational education diploma, which may be the first diploma earned at the secondary level or the diploma earned after having obtained an SSD in general education.

Table 5.4

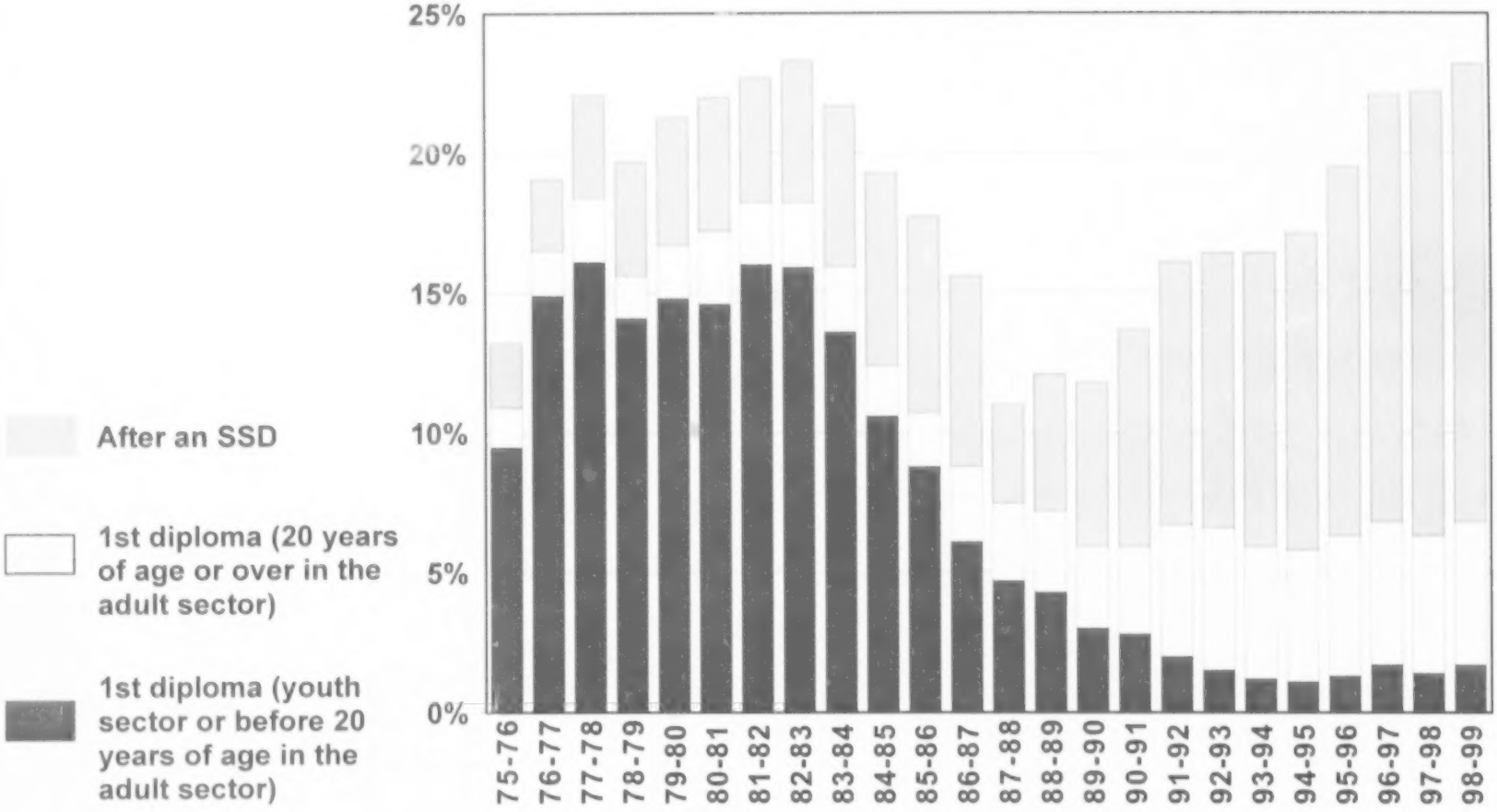
Probability of obtaining a vocational education diploma, by sector, age and gender (%)

	1975-1976	1985-1986	1995-1996	1996-1997	1997-1998	1998-1999[e]
Youth sector or before 20 years of age in the adult sector						
First diploma	9.3	8.8	1.3	1.7	1.4	1.7
After an SSD	2.1	6.4	3.5	4.1	4.4	4.4
Total	11.6	15.1	4.7	5.8	5.8	6.1
Adult sector: 20 years of age or over						
First diploma	1.4	1.9	5.0	5.1	4.9	5.1
After an SSD	0.2	0.6	9.7	11.2	11.5	12.0
Total	1.6	2.5	14.7	16.3	16.4	17.1
Total						
First diploma	10.9	10.7	6.2	6.8	6.4	6.8
After an SSD	2.3	7.0	13.2	15.3	15.9	16.4
Total	**13.1**	**17.7**	**19.4**	**22.1**	**22.2**	**23.2**
Male	9.8	17.0	21.0	24.0	24.0	24.6
Female	16.6	18.4	17.8	20.1	20.4	21.6

e: Estimates
SSD: Secondary School Diploma

Graph 5.4

Probability of obtaining a vocational education diploma, by sector and age (%)



5.5 Graduation From College

In 1997-1998, the proportion of a generation who could expect to obtain a first college diploma, be it a Diplôme d'études collégiales (DEC–diploma of college studies) or any other diploma, was 39.3%. This is an increase of 17.1 percentage points since 1975-1976, when it stood at 22.2%. The proportion of a generation who are admitted to college (see Section 2.10) and the proportion of students who obtain a diploma upon leaving college (see Section 3.3 and 3.4) are combined to produce this result.

In 1997-1998, the proportion of young Quebeckers who could expect to obtain a DEC was 39.3%, almost the same level as the previous year.

The probability of women obtaining a diploma (DEC or other) was approximately one and one half times higher than for men (49.1% compared with 30.1%). The gap between the sexes grew steadily during the 1980s. In 1975-1976, the probability of obtaining a college diploma[1] was already 2.7 percentage points higher for women than for men. Since then, the probability has continued to rise more sharply for women, and the gap is now 19 percentage points.

The greatest growth occurred with the pre-university DEC, as the probability of obtaining this type of diploma rose from 13.5% to 25.2% between 1975-1976 and 1997-1998, an increase of 11.7 percentage points, compared with a rise of 6.6 percentage points for the technical DEC over the same period. In the last year, however, only in technical education did the probability of obtaining a diploma increase (0.7 percentage points), while it dropped by 0.3 percentage points for a pre-university DEC.

For both types of programs, the number of women graduating between 1975-1976 and 1996-1997 exceeded the number of men, and the gap between the sexes continued to widen. The probability of women obtaining a pre-university DEC increased by 19.1 percentage points, compared with a rise of 4.6 for men. On the other hand, for both sexes the probability of obtaining a technical DEC grew more modestly, although the increase for men was more pronounced in technical education (5.7 percentage points) than in pre-university education (4.6 percentage points). Women were ahead of men by 4.4 percentage points in 1975-1976, and by 6.1 percentage points in 1997-1998.

1. The probability of obtaining a first college diploma measures the proportion of a generation that stays in school until a college diploma is earned. In this edition, the rates are calculated according to the school year and not the calendar year, as in previous editions.

The Ministère's objective for the year 2010 is a college graduation rate of 60% for young Quebeckers; in 1997-1998, the rate was 39.3%. The gap between the actual rate and the objective is greater than the increase recorded over the last 22 years, since the probability of obtaining a DEC in 1975-1976 was 21%.

Table 5.5

Probability of obtaining a first college diploma, by gender and type of education (%)

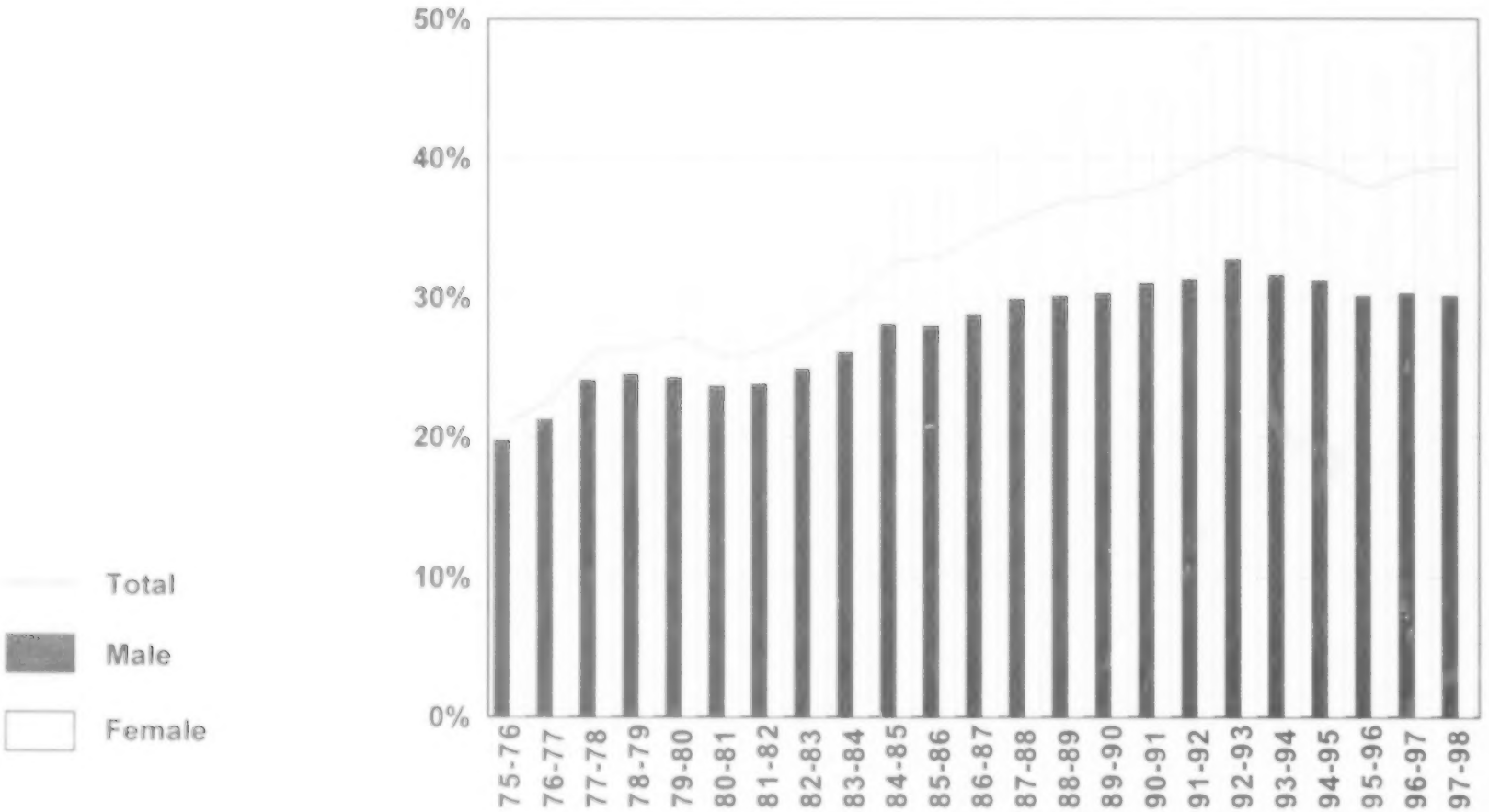
	1975-1976	1985-1986	1990-1991	1995-1996	1996-1997	1997-1998[e]
Male						
All diplomas[1]	20.8	29.6	32.5	30.4	30.4	30.1
DEC[2]	**19.8**	**28.0**	**31.0**	**30.1**	**30.3**	**30.1**
Pre-university education	14.3	18.7	21.8	19.2	19.5	18.9
Technical education	5.5	9.0	3.4	10.7	10.8	11.2
Female						
All diplomas[1]	23.5	39.2	46.5	46.3	48.1	49.1
DEC[2]	**22.2**	**37.9**	**45.1**	**46.0**	**48.0**	**49.1**
Pre-university education	12.7	23.6	30.2	29.6	31.8	31.8
Technical education	9.5	13.9	13.8	16.1	16.2	17.3
Total						
All diplomas[1]	22.2	34.3	39.4	38.2	39.1	39.3
DEC[2]	**21.0**	**32.8**	**37.9**	**37.8**	**39.0**	**39.3**
Pre-university education	13.5	21.1	25.9	24.2	25.5	25.2
Technical education	7.5	11.4	11.1	13.3	13.4	14.1

e: Estimates

1. The diplomas considered here are the Diplôme d'études collégiales (DEC–diploma of college studies), the Attestation d'études collégiales (AEC–attestation of college studies) until 1984, the Certificat d'études collégiales (CEC–certificate of college studies) and the Diplôme de perfectionnement de l'enseignement collégial (DPEC–diploma of advanced college studies). Since 1994, there have been no new enrollments in programs leading to a CEC or to a DPEC.
2. These figures include DECs without mention of vocational specialty.

Graph 5.5

Probability of obtaining a first college diploma, by gender (%)



5.6 Graduation From University[1]

In 1998, the probability of obtaining a bachelor's degree dropped a second consecutive year from its peak of 29.0% in 1996, and stood at 26.6%.

Based on behaviours observed in 1998, more than one quarter of young Quebeckers (26.6%) can expect to obtain a bachelor's degree. For several years, more women than men have enrolled in university (see Section 2.12). The situation for the two sexes has changed drastically since 1976, when the probability of obtaining a bachelor's degree was 13.1% for women and 16.7% for men. In 1983, the probability for both sexes was more similar, and since then, the increase in probability has been in the women's favour. In 1998, the probability of obtaining a bachelor's degree was 31.8% for women and 21.6% for men, or an increase of 18.7 percentage points for women and 4.9 percentage points for men.

The Ministère's objective for the year 2010 is that 30% of young Quebeckers obtain a bachelor's degree. The current rate of 26.6% is not likely to increase any time soon, given that, since 1992-1993, enrollment in bachelor's programs has decreased (see Section 2.12). The effect of this decline was felt for the first time in 1997, when the probability of obtaining a bachelor's degree dropped by 0.9 percentage points from 1996. The probability of obtaining a bachelor's degree is nevertheless higher in Québec than the average of 23.6% recorded for member countries of the Organisation for Economic Co-operation and Development (OECD) in 1996.[2]

With regard to obtaining a master's degree, the results have increased significantly in the last year. The probability of obtaining a master's degree increased by 0.6 percentage points for women and by 0.4 percentage points for men and women combined, which brings the probability of graduating to 6.8% and 6.4%, respectively. The latter percentage is more than double the percentage of 2.7% observed in 1976. An increase in enrollment at the master's level (see Section 2.12) points to a continued increase in the number of master's degrees awarded for at least a few years to come. The

1. Only university degrees (bachelor's, master's and doctoral degrees) awarded by Québec universities are considered here. Degrees earned by Quebeckers outside the province are not taken into account.
2. This is the average of the net probabilities of obtaining a first university degree when the short programs (similar to a bachelor's) and long programs (more than four years) are combined. These rates appear in Table C4.2a in the OECD publication, *Education at a Glance–OECD Indicators* (Paris, 1998).

difference between the sexes here is much less significant (0.9 percentage points) than for the bachelor's degree, but could widen in favour of women, given the growing margin in earning a bachelor's degree. Since 1976, the situation of men and women has reversed; whereas the initial gap was 1.6 percentage points in favour of the men, the probability of women obtaining a master's degree has climbed from 1.9% to 6.8%, moving ahead of the probability for men in 1993.

A doctorate is still earned by a minute fraction of the population—only 1.0%. This last phase in the education system is perhaps the only one in which men continue to outnumber women. Figures are, however, minimal for both sexes: 1.3% of men obtain a doctorate, compared with 0.8% of women. In view of developments at the master's level, the pool of aspiring doctoral candidates is also likely to increase for some time to come.

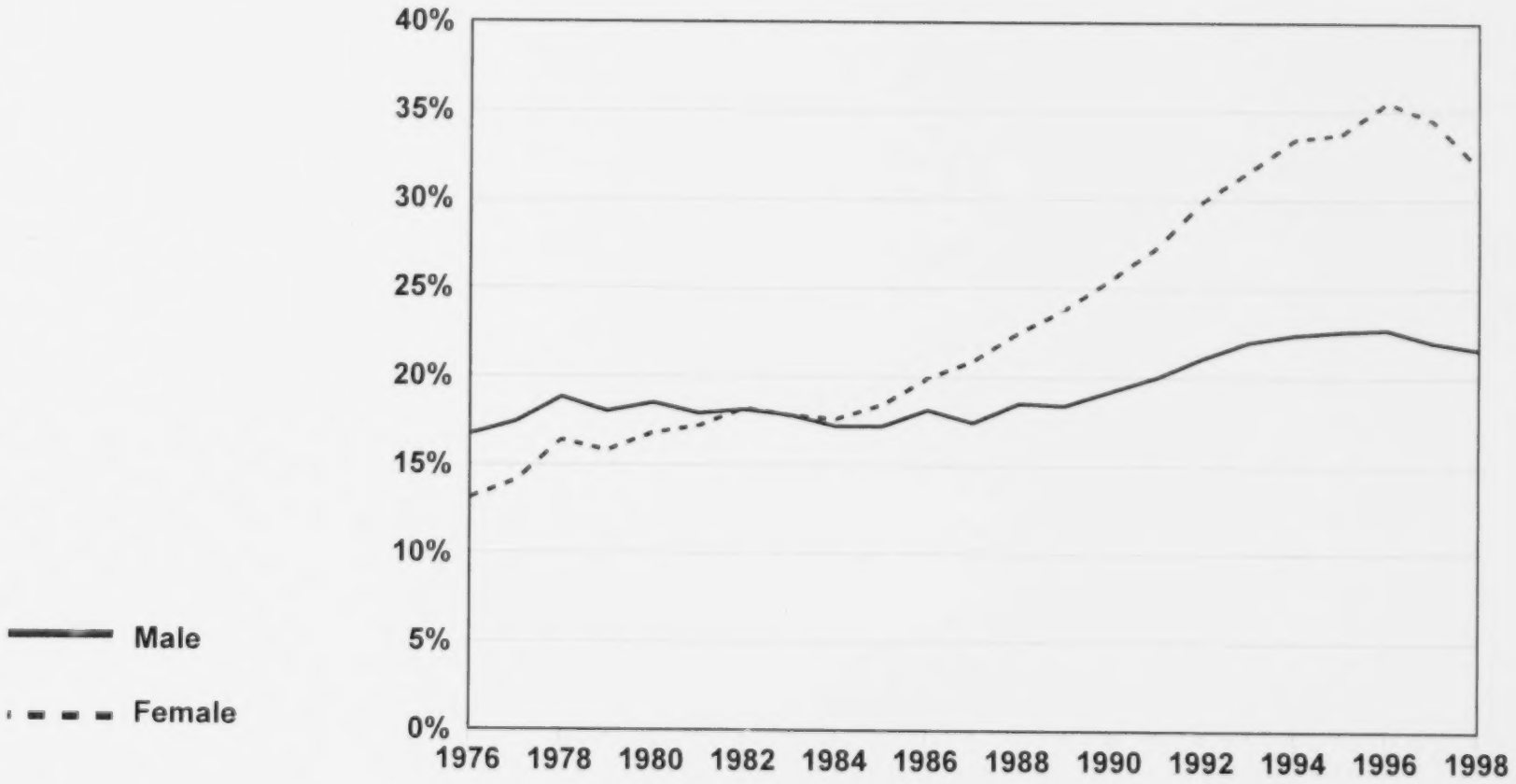
Table 5.6

Probability of obtaining a university degree, by gender (%)

	1976	1986	1991	1996	1997	1998
Bachelor's degree						
Male	16.7	18.1	20.0	22.7	22.0	21.6
Female	13.1	19.9	27.3	35.5	34.5	31.8
Total	**14.9**	**19.0**	**23.6**	**29.0**	**28.1**	**26.6**
Master's degree						
Male	3.5	4.4	4.4	5.8	5.8	5.9
Female	1.9	3.4	4.3	6.3	6.2	6.8
Total	**2.7**	**3.9**	**4.4**	**6.0**	**6.0**	**6.4**
Doctorate						
Male	0.6	0.7	0.9	1.2	1.2	1.3
Female	0.2	0.3	0.4	0.6	0.7	0.8
Total	**0.4**	**0.5**	**0.6**	**0.9**	**1.0**	**1.0**

Graph 5.6

Probability of obtaining a bachelor's degree, by gender (%)



5.7 University Degrees by Field of Study

In 1998, the largest proportion (35.2%) of bachelor's, master's and doctoral degrees issued by Québec universities were earned in social sciences and humanities, followed by business administration (20.1%), education (10.4%), engineering and architecture (10.2%), health sciences (8.9%), and natural sciences (8.0%). Mathematics and computer sciences represented 3.8% and law, 3.4%.

In 1998, the proportion of degrees earned in engineering and architecture, natural sciences, and mathematics and computer science accounted for 22.0% of all the bachelor's, master's and doctoral degrees awarded. In these fields of study, more men (61.3%) obtained degrees than women. However, more women earned degrees in the other fields of study (except business administration) or when all the fields of study are taken into account.

The majority of degree holders were women (56.6%). In 1998, women earned 75.7% of the degrees in education, and 71.8% of the degrees in health sciences, 66.8% in social sciences and humanities and 58.1% in law. However, men earned the majority of the degrees in engineering and architecture (79.1%),[1] in mathematics and computer sciences (69.0%), in natural sciences (53.0%) and in business administration (51.4%).[2]

Compared with 1990, the number of degrees issued by universities in 1996 rose by 12.5%. This percentage is the result of a 19.3% increase in the number of degrees awarded to women and a 4.8% increase for men.

In the last eight years, the distribution of the degrees awarded according to field of study has changed. For example, the number of degrees in business administration has dropped (by 2.5 percentage points), as has, to a lesser extent, the number of degrees in engineering and architecture (by 0.9 percentage points), mathematics and computer science (by 0.3 percentage points), education (by 0.3 percentage points) and law (by 0.1 percentage points). At the other extreme, the number of degrees awarded in social sciences and humanities has risen by 3.7 percentage points, and in natural sciences and health sciences, it has risen by 0.2 and 0.1 percentage points, respectively.

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1. The proportion of degrees in engineering and architecture earned by women rose from 16.8% in 1990 to 20.9% in 1998.
2. This refers to students who earned a university degree (bachelor's, master's or doctoral degree) during the year in question.

For member countries of the Organisation for Economic Co-operation and Development (OECD),[3] degrees earned in the sciences (natural sciences, mathematics and computer science, and engineering and architecture) accounted for 28% of the total number of degrees earned in 1998; in Québec, this proportion was 22%. The proportion of degrees in social sciences, law and business administration was 32% for the OECD countries and 23.8% for Québec, whereas the proportion of degrees in health sciences was 11% for the OECD countries and 8.9% for Québec. Degrees in social sciences and humanities (including education) represented 29% for the OECD countries and 45.3% for Québec.

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3. Source: OECD, *Education at a Glance-OECD Indicators* (Paris: 1999). Any comparison between the results presented in this section and those published by the OECD must take into account the different methodologies used to obtain the results.

Table 5.7

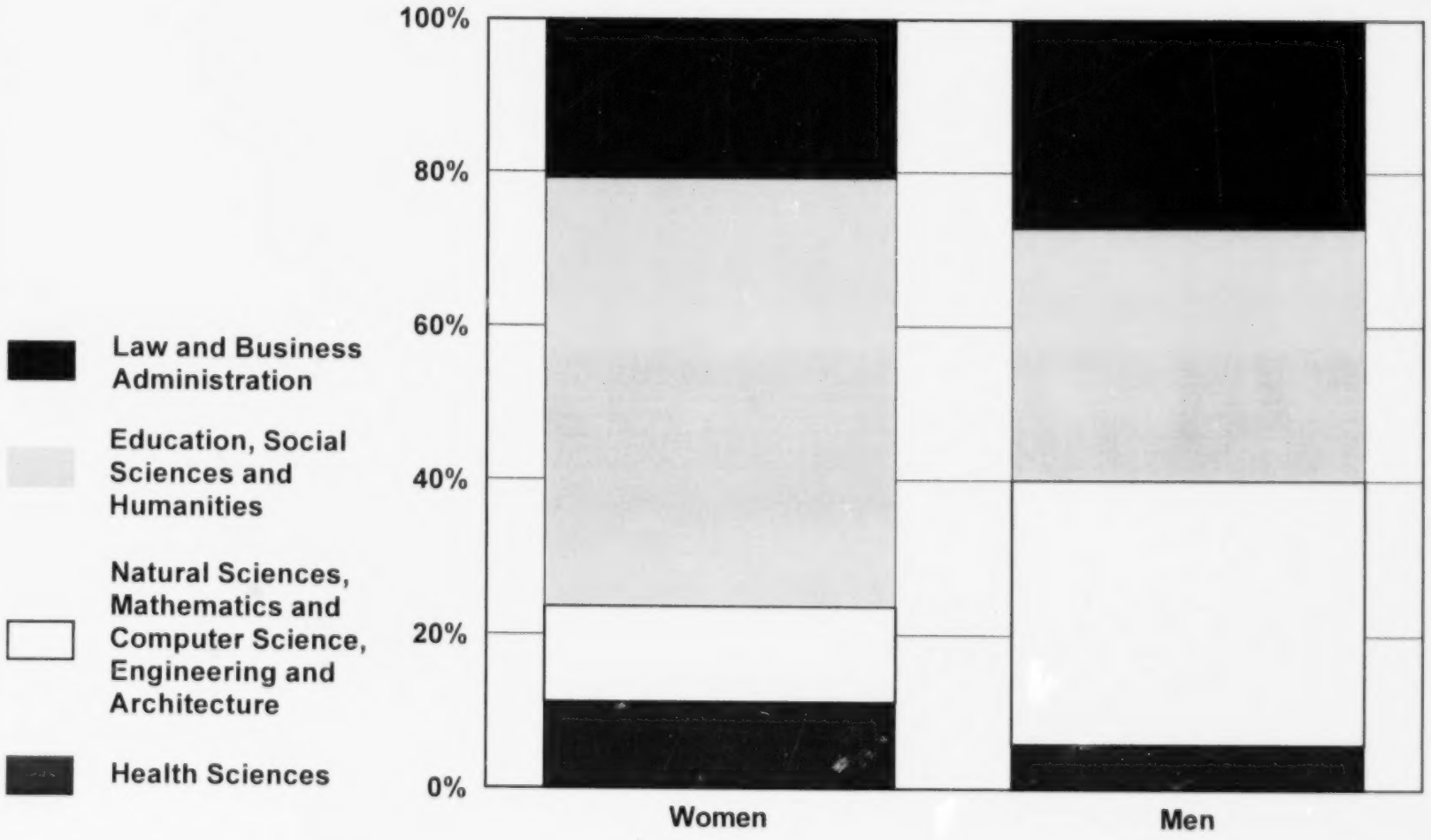
Distribution of university degrees, by field of study and gender[1] (%)

	1990	1992	1994	1995	1996	1997	1998
Health sciences	8.7	8.4	9.0	8.9	8.8	9.3	8.9
Natural sciences	7.8	7.2	6.9	6.4	7.33	7.6	8.0
Mathematics and computer science	4.0	3.6	3.5	3.6	3.5	3.8	3.8
Engineering and architecture	11.1	11.0	11.0	11.0	10.6	10.1	10.2
Law	3.5	3.6	3.2	3.2	3.3	3.3	3.4
Business administration	22.6	23.2	21.1	20.0	18.7	18.5	20.1
Education	10.7	11.7	13.7	15.1	15.2	13.3	10.4
Social sciences and humanities	31.6	31.3	31.7	31.8	32.6	34.2	35.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Female	53.4	54.6	56.3	56.4	57.6	57.6	56.6
Male	46.6	45.4	43.7	43.6	42.4	42.4	43.4

1. Only holders of bachelor's, master's or doctoral degrees who obtained their degree in the year in question are considered.

Graph 5.7

Distribution of university degrees, by field of study and gender: 1998 (%)



6.1 Employment Trends by Level of Education

The increase of 50 000 jobs in 1999 over 1998 has benefited individuals who have a secondary school diploma.

Since the early 1990s, the structure of the labour market in Québec and in Canada as a whole has been changing in a way that benefits workers with more education. Indeed, the employment situation has been more favourable for those with a postsecondary diploma or university degree,[1] both during the recession of the early 1990s and in the period since 1993, when employment has been on the rise. The data presented in this section is from Statistics Canada. The levels of education considered here correspond to the highest level of education attained by employed workers in a given year.[2] It should be noted, however, that these levels do not necessarily correspond to employment requirements.

In Québec, it was only in 1995 that the job losses suffered in the last recession were absorbed. In 1999, although there were 217 000 more jobs than in 1990, this growth in employment did not benefit all workers. Those who did not complete postsecondary or university studies suffered job losses, while those who did made gains. Thus, employed individuals with a university education were more numerous (by 225 000) in 1999 than in 1990, for an increase of 54.0%. Those with a postsecondary diploma held 323 000 more jobs (35.4%) in 1999 than in 1990. In short, those with a postsecondary or university education held 548 000 more jobs in 1999 than in 1990.

The situation was different for those without a postsecondary or university education. In all, these individuals held 331 000 fewer jobs in 1999 than in 1990. Thus, fewer people who had begun postsecondary studies without completing them held jobs in 1999 than in 1990 (3 000 fewer), representing a decrease of 1.1%. Secondary school graduates who did not pursue a postsecondary education held 46 000 fewer jobs (7.3%) in 1999 than in 1990. The number of persons who were employed and whose highest level of education fell short of a secondary school diploma declined in 1999 by 282 000 compared with 1990, for a decrease of 30.5%.

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1. According to Statistics Canada terminology, elementary school includes the first two years of secondary education. Postsecondary studies include all programs leading to diplomas and certificates in the trades (including the Diploma of Vocational Studies) and exclude university studies. The university sector begins with programs leading to at least a bachelor's degree.
2. The level of education attained by a person may increase over time. It is therefore possible that the same job, held by the same person, will be considered to be held by a person with a higher level of education in a given year than in an earlier year.

Table 6.1

Employment trends in Québec, by level of education[1] (in thousands)

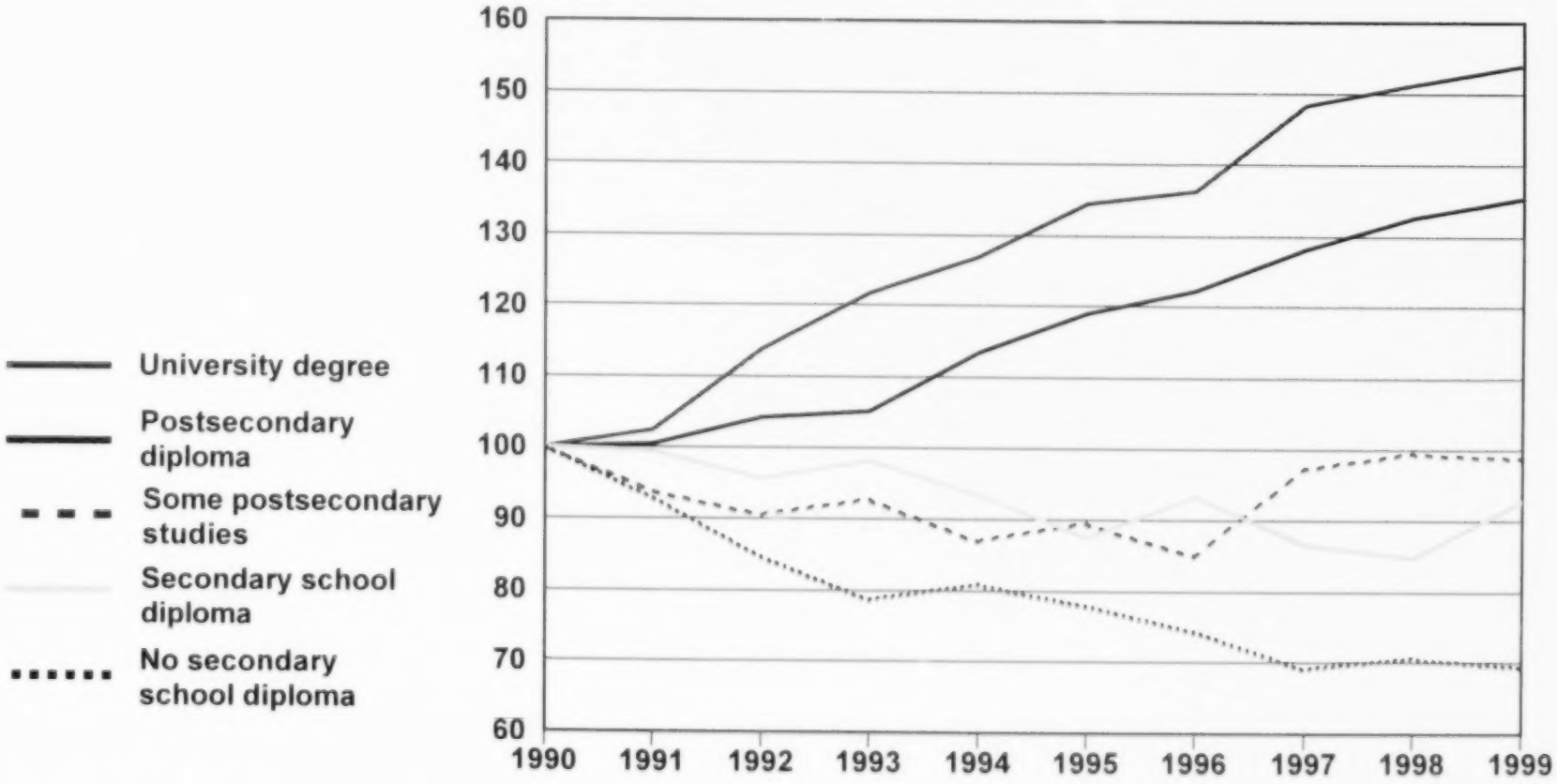
Year	No secondary school diploma	Secondary school diploma	Some postsecondary studies	Postsecondary diploma	University degree	Total
1990	927	632	257	910	416	3 141
1992	784	604	233	948	473	3 042
1995	723	553	230	1 082	560	3 148
1998	654	536	255	1 207	629	3 282
1999	645	586	254	1 233	641	3 358
Change from 1990 to 1999	- 30.5%	- 7.3%	- 1.1%	35.4%	54.0%	6.9%

Source: Statistics Canada

1. See notes 1 and 2 at the bottom of the text.

Graph 6.1

Employment trends in Québec, by level of education (1990 = 100)



6.2 Labour Force Activity by Level of Education[1]

In 1999, more than half of all jobs in Québec were held by postsecondary or university graduates.

In 1999, approximately one out of every five jobs in Québec (19.2%) was held by a person who had not finished secondary school. Almost one out of every four jobs (25.0%) was held by a person having finished secondary school or begun postsecondary studies. More than half of all jobs (55.8%) were held by people with a postsecondary or university diploma or degree.

Of the 19.1% who had a university degree, 13.5% had a bachelor's degree and 5.6% had a higher degree.

In comparison with Ontario and with all the other provinces taken together, the proportion of jobs in Québec held by individuals who did not finish secondary school was 2.5 and 1.5 percentage points higher, respectively; the proportion of jobs held by individuals with a secondary school diploma or who had begun postsecondary studies was lower by 6.6 and 7.0 percentage points, respectively; and the proportion of jobs held by individuals with a postsecondary diploma or university degree was higher by 4.1 and 5.5 percentage points, respectively.

The proportion of jobs in Québec held by people with a postsecondary diploma was 6.1 percentage points higher than in Ontario and 3.6 percentage points higher than in the other provinces, while the proportion of jobs held by people with university degrees was 2.0 percentage points lower than in Ontario, but 1.9 percentage points higher than in the other provinces.

Of the university graduates, the proportion of those with bachelor's degrees was 0.2 percentage points lower than in Ontario, but 1.5 percentage points higher than in the other provinces, while the proportion of people with higher degrees was 1.8 percentage points lower than in Ontario, but 0.4 percentage points higher than in the other provinces.

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1. According to Statistics Canada terminology, the postsecondary sector includes all programs of study leading to trade diplomas and certificates (including the Diploma of Vocational Studies) and excludes the university sector. The university sector begins with programs leading to at least a bachelor's degree.

Table 6.2

Employment by highest level of education, Québec, Ontario and the other provinces: 1999[1] (%)

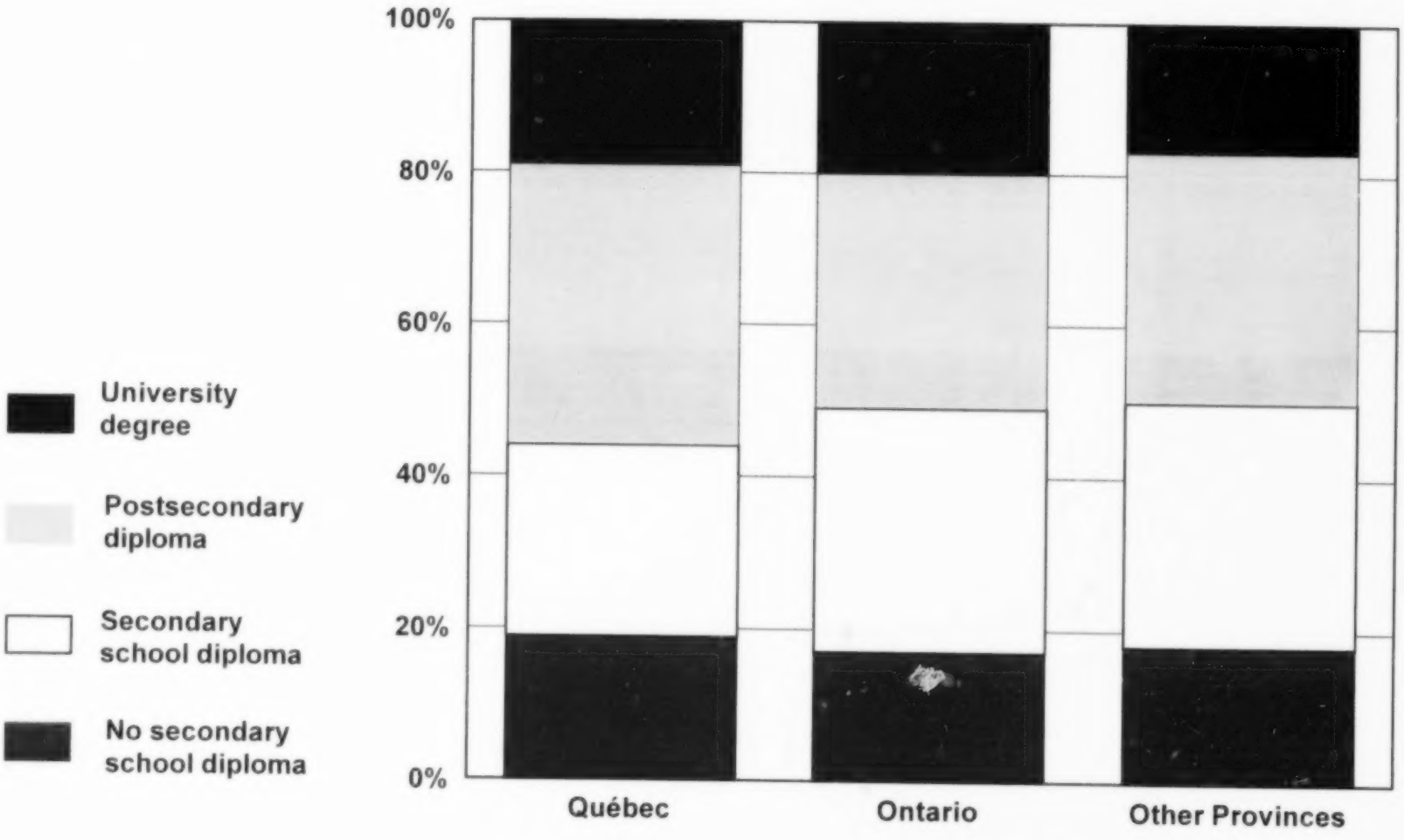
	Québec	Ontario	Other Provinces
Total	100.0	100.0	100.0
No secondary school diploma	19.2	16.7	17.7
Secondary school diploma	17.4	22.0	21.8
Some postsecondary studies	7.6	9.6	10.2
Postsecondary diploma	36.7	30.6	33.1
University degree	19.1	21.1	17.2
Bachelor's degree	13.5	13.7	12.0
Higher degree	5.6	7.4	5.2

Source: Statistics Canada

1. See Note 1 at the bottom of the text.

Graph 6.2

Distribution of employment, by highest diploma earned: 1999 (%)



6.3 Integration of Graduates Into the Labour Market

Upon completing their studies, secondary school, college and university graduates who do not pursue their education arrive on the labour market.[1] Data obtained through Québec government studies provides a picture of the placement and unemployment of graduates a few months after they obtain their diploma or degree.[2]

College graduates have lower unemployment rates than secondary school graduates. Similarly, university graduates have lower unemployment rates than college graduates.

In 1999, 15.1% of the students who had graduated with a DVS in 1997-1998 were unemployed, a decrease of 3.3 percentage points from 1998. A total of 74.5% of the DVS graduates had a job. Of those who were employed, 85.5% worked full time and 74.6% were employed full time in their field. Placement rates for DVS graduates have been on the rise since 1994.

A total of 6.8% of students who obtained a diploma in a college technical program in 1997-1998 were unemployed on March 31, 1999. This represents a drop of 1.8 percentage points from 1998. In 1999, 73.2% of technical program graduates had a job. Of those who were employed, 84.4% worked full time and 82.6% were employed full time in their field. Placement rates for technical program graduates have been on the rise since 1994.

On March 31, 1999, 11.9% of students who obtained a diploma in a college pre-university program in 1997-1998 were unemployed. This represents a drop of 0.6 percentage points from the previous year. Some 14.9% of pre-university

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1. The analysis deals specifically with holders of a Diploma of Vocational Studies (DVS) (known as the Secondary School Vocational Diploma–SSVD prior to 1998), a Diplôme d'études collégiales (DEC–diploma of college studies), a bachelor's degree or a master's degree.
2. In this edition, results refer to students graduating in the year indicated, 9 months after the completion of studies for graduates with a DVS or an Attestation of Vocational Specialization (AVS) and roughly 10 months for DEC graduates (15 months for those finishing in the fall). The situation for those graduating with a bachelor's or a master's degree is as of January, two years after they obtained the degree.

program graduates had a job. Of the employed graduates, 56.7% worked full time. Since 1994, the proportion of pre-university graduates finding employment has been on the rise (except in 1998, when it dropped by 0.9 percentage points).

The unemployment rate for students who obtained a bachelor's degree in 1997 was 6.4% in January 1999, having dropped by 2.7 percentage points compared with 1997. Placement rates have been on the rise since 1994.

The unemployment rate for those who graduated with a master's degree in 1997 was 7.4% in January 1999, an increase of 0.7 percentage points since 1997. Placement rates have been rising since 1997.

Unemployment rates for 15-to-34-year-olds are given in Table 6.3 as a reference.

Table 6.3

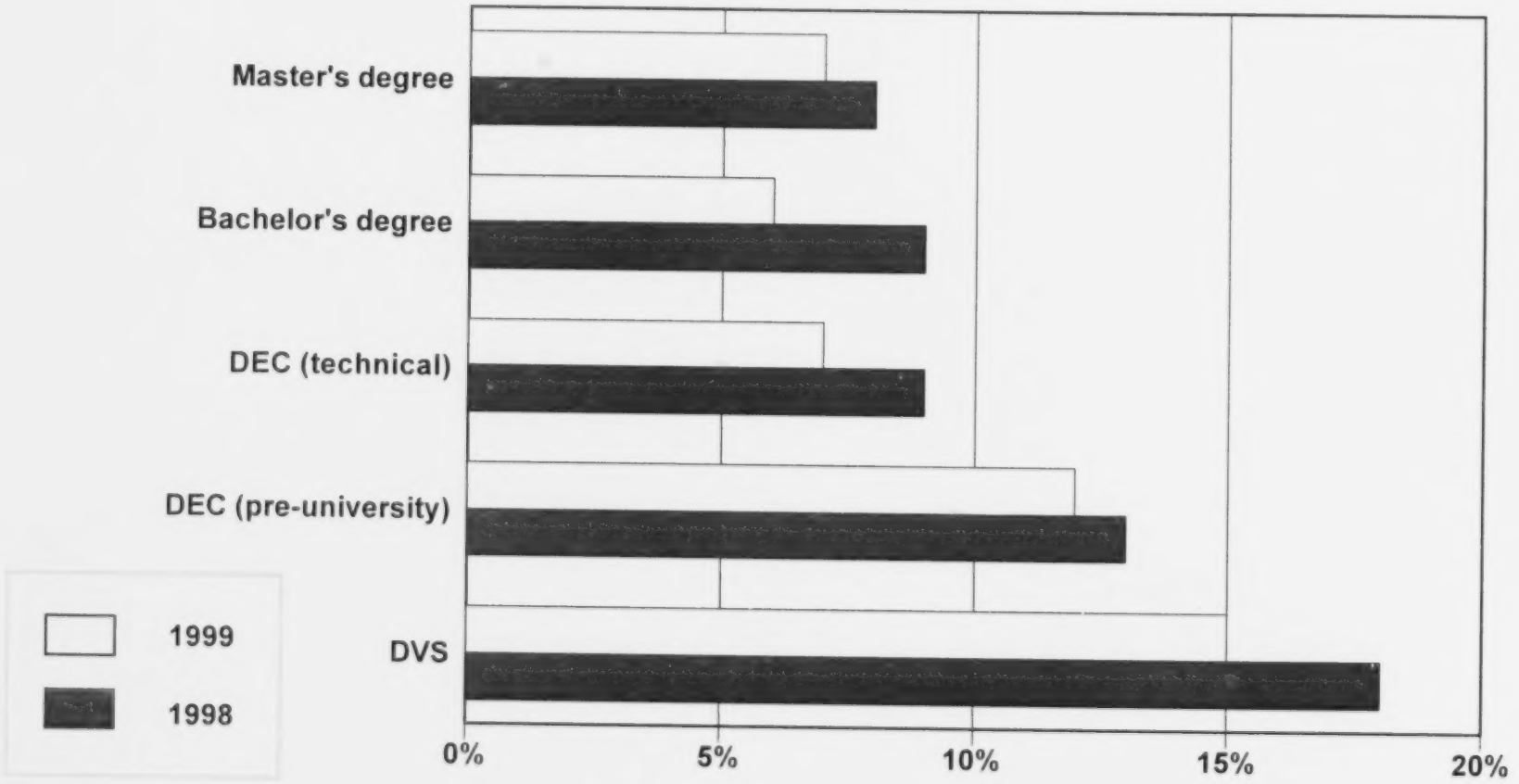
Unemployment rates for graduates, by level of education and type of diploma or degree (%)

	1989	1994	1997	1998	1999
Secondary education					
DVS (or SSVD)	–	27.2	24.2	18.4	15.1
AVS	–	24.6	21.4	16.6	12.4
College					
Pre-university education	N/A	21.4	18.3	12.5	11.9
Technical education	8.2	18.4	11.1	8.6	6.8
University					
Bachelor's degree	8.1	11.4	9.1	N/A	6.4
Master's degree	4.9	6.8	8.1	N/A	7.4
Unemployment rates in Québec[1]					
15-19-year-olds	15.2	20.6	27.4	23.7	21.3
20-24-year-olds	11.9	15.9	15.7	14.2	12.7
25-34-year-olds	9.6	12.7	11.2	9.7	8.7

N/A: Data not available
–: Not applicable
1. Data obtained from Statistics Canada. Includes, for each age group, persons from all levels and types of education, whose work experience may differ from that of recent graduates.

Graph 6.3

The unemployment rate among graduates: 1998 and 1999 (%)



6.4 Integration of Secondary Vocational Education Graduates Into the Labour Market

The unemployment rate among secondary vocational education graduates has been dropping since 1997.

On March 31, 1999, 74.5% of 1997-1998 graduates of programs leading to a Secondary School Vocational Diploma (SSVD) (or Diploma of Vocational Studies–DVS, as it has been called since 1998) were employed, 13.3% were looking for a job, 8.3% were still in school and 3.9% were not in the labour force. At the same time, 77.3% of 1997-1998 graduates of programs leading to an Attestation of Vocational Specialization (AVS) were employed, 10.9% were looking for a job, 6.8% were still in school and 5.0% were not in the labour force. The number of DVS graduates in the labour force was 0.4 percentage points lower than the number of AVS graduates, the number of DVS graduates still in school was 1.5 percentage points higher than the number of AVS graduates, and the number of DVS graduates not in the labour force was 1.1 percentage points lower than the number of AVS graduates. The unemployment rate was higher for DVS graduates (15.1%) than for AVS graduates (12.4%).

Proportionally speaking, the number of jobs held by DVS graduates is growing more rapidly than the number of graduates themselves. Thus, between 1995 and 1999, the number of jobs obtained by graduates increased by 58.7%, from 10 607 to 16 835. During the same period, the number of graduates (calculated according to *Relance* criteria) increased by 37.8%, from 16 394 in 1995 to 22 596 in 1999.

The results are particularly encouraging among graduates under the age of 20; the proportion of graduates with a DVS who were employed increased from 64.0% in 1995 to 75.0% four years later. For graduates with an AVS, this proportion increased from 73.8% to 85.9% during the same period.

Although the unemployment rate among DVS graduates is still high, it is decreasing. Between 1995 and 1999, the rates were 25.6%, 27.0%, 24.2%, 18.4% and 15.1%, respectively. Also, the unemployment rate is lower for graduates 20 years old or younger: 12.3% in 1999, compared with 15.1% for the group as a whole.

There is an obvious trend throughout: more men than women are employed full time. Since 1995, the percentage of men employed full time has varied between 90.0% and 93.6%, compared with 66.0% and 74.9% of women.

Between 1995 and 1999, the correspondence between the field of schooling and the field of employment increased from 66.1% to 74.6%. From 1995 to 1998, the difference between men and women in this regard was approximately 1 percentage point, on average. However, in 1999, the difference was 5.3 percentage points.

Since 1995, the vast majority (more than 85%) of graduates employed full time have permanent jobs.

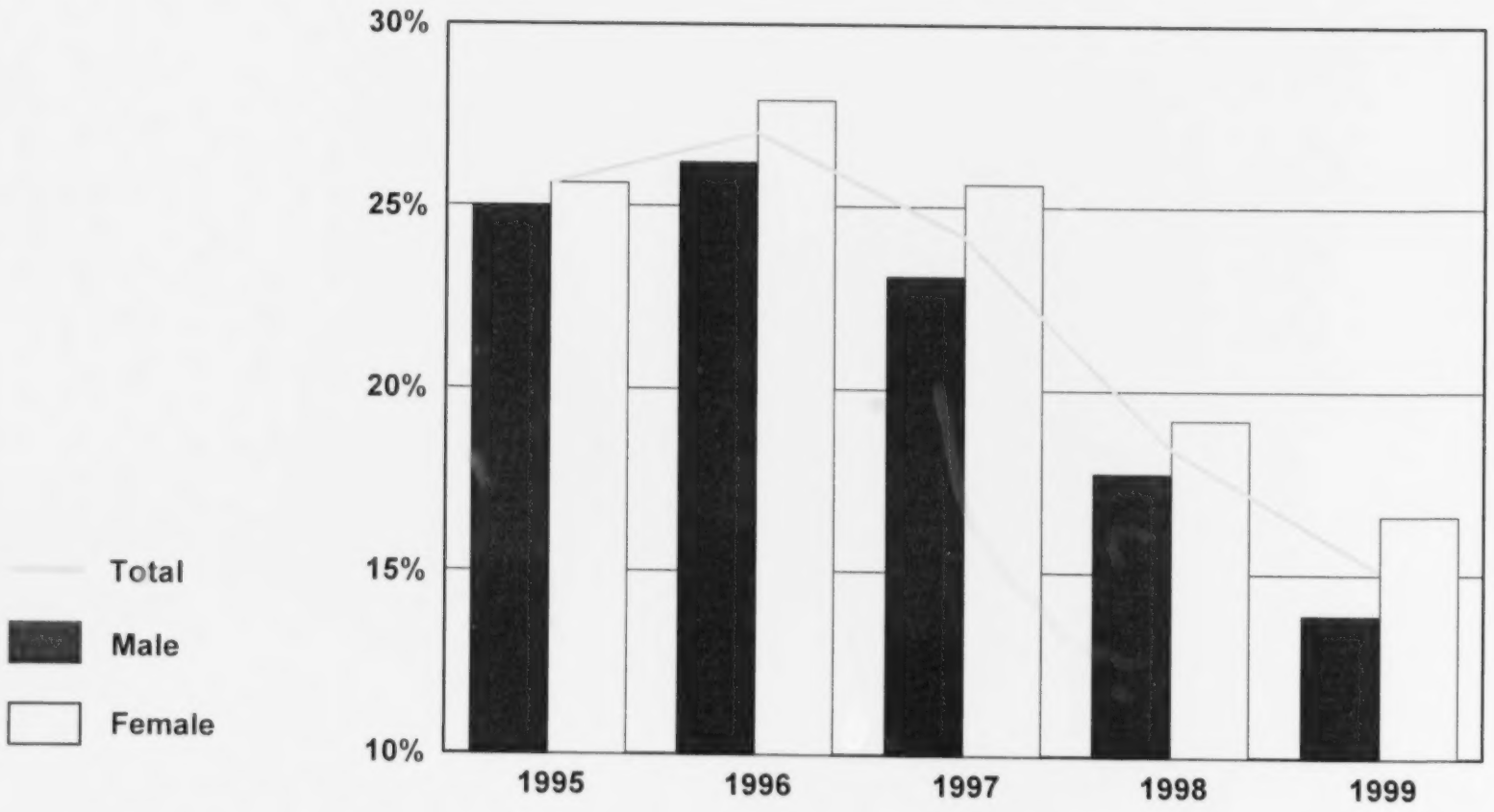
Table 6.4

Employment situation of secondary vocational education graduates, by graduation class, on March 31 following completion of their studies (%)

	1995	1996	1997	1998	1999
Graduates with a Diploma of Vocational Studies (DVS) (formerly SSVD)					
Employed	64.8	59.0	65.6	73.2	74.5
Looking for a job	22.2	21.8	21.0	16.5	13.3
In school	6.7	12.0	8.1	6.0	8.3
Not in the labour force	6.3	7.2	5.3	4.3	3.9
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Unemployment rate	25.6	27.0	24.2	18.4	15.1
Graduates with an Attestation of Vocational Specialization (AVS)					
Employed	71.1	65.7	69.5	74.3	77.3
Looking for a job	18.8	18.3	18.9	14.8	10.9
In school	5.0	8.6	6.3	5.8	6.8
Not in the labour force	5.1	7.4	5.3	5.1	5.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Unemployment rate	20.9	21.8	21.4	16.6	12.4

Graph 6.4

Unemployment rate for secondary vocational education graduates, by gender, on March 31 following completion of their studies (%)



6.5 Integration of College Graduates Into the Labour Market

On March 31, 1999, 73.2% of graduates of college technical programs from the class of 1997-1998 had entered the labour market, compared with 71.6% of graduates from the class of 1996-1997 as of March 31, 1998.

Proportionally speaking, fewer graduates of college technical programs are unemployed than graduates of pre-university programs.

This proportion has been rising since 1996 (68.1%), and gained 5.1 percentage points in 1999. The proportion of graduates from technical programs looking for work went from 10.4% in 1996 to 5.3% in 1999, a drop of 5.1 percentage points. Consequently, the unemployment rate decreased by 6.5 percentage points, dropping from 13.3% in 1996 to 6.8% in 1999.

Proportionally speaking, the number of jobs held by college graduates is growing more rapidly than the number of graduates themselves. Thus, between 1995 and 1999, the number of jobs obtained by college graduates increased by 14.6%, from 9 488 to 10 872. During the same period, the number of college graduates increased by 9.5%, from 13 552 to 14 846.

The working conditions associated with the jobs obtained have been improving since 1995. Thus, in 1999, 84% were full-time jobs and 82.6% of these were related to the field of study, while in 1995, only 76.4% were full-time jobs and 72.6% of these were in the field of study. In 1999, technicians were earning an average weekly salary of $474, compared with $426 in 1995.

In 1999, 19.3% of technical education graduates were still in school, compared with 19.0% the previous year; most of them were in university (see Section 2.11). This proportion has been rising since 1995 (an increase of 2.1 percentage points).

On March 31, 1999, the proportion of pre-university education graduates with jobs was 14.9%, up 1 percentage point from the previous year. Note that the aim of pre-university education is to prepare students to pursue their studies and not to enter the labour market.

The working conditions of graduates of pre-university programs, already not as good as those of graduates of technical programs, have worsened slightly over the past year. The percentage of graduates of pre-university programs with full-time employment dropped slightly to 65.9% on March 31, 1998, compared with 56.7% on the same date in 1999. The average weekly salary in 1999 was $338, compared with $319 in 1998.

On March 31, 1999, the proportion of graduates of pre-university programs looking for a job was 2.0%, the same as in 1998. The unemployment rate fell by 0.6 percentage points, from 12.5% in 1998 to 11.9% in 1999. During the year following their last year in college, 80.6% of graduates of pre-university programs were still in school, compared with 81.6% the previous year. Most of them were in university programs (see Section 2.11). The proportion of those not in the labour force remained stable at 2.5%.

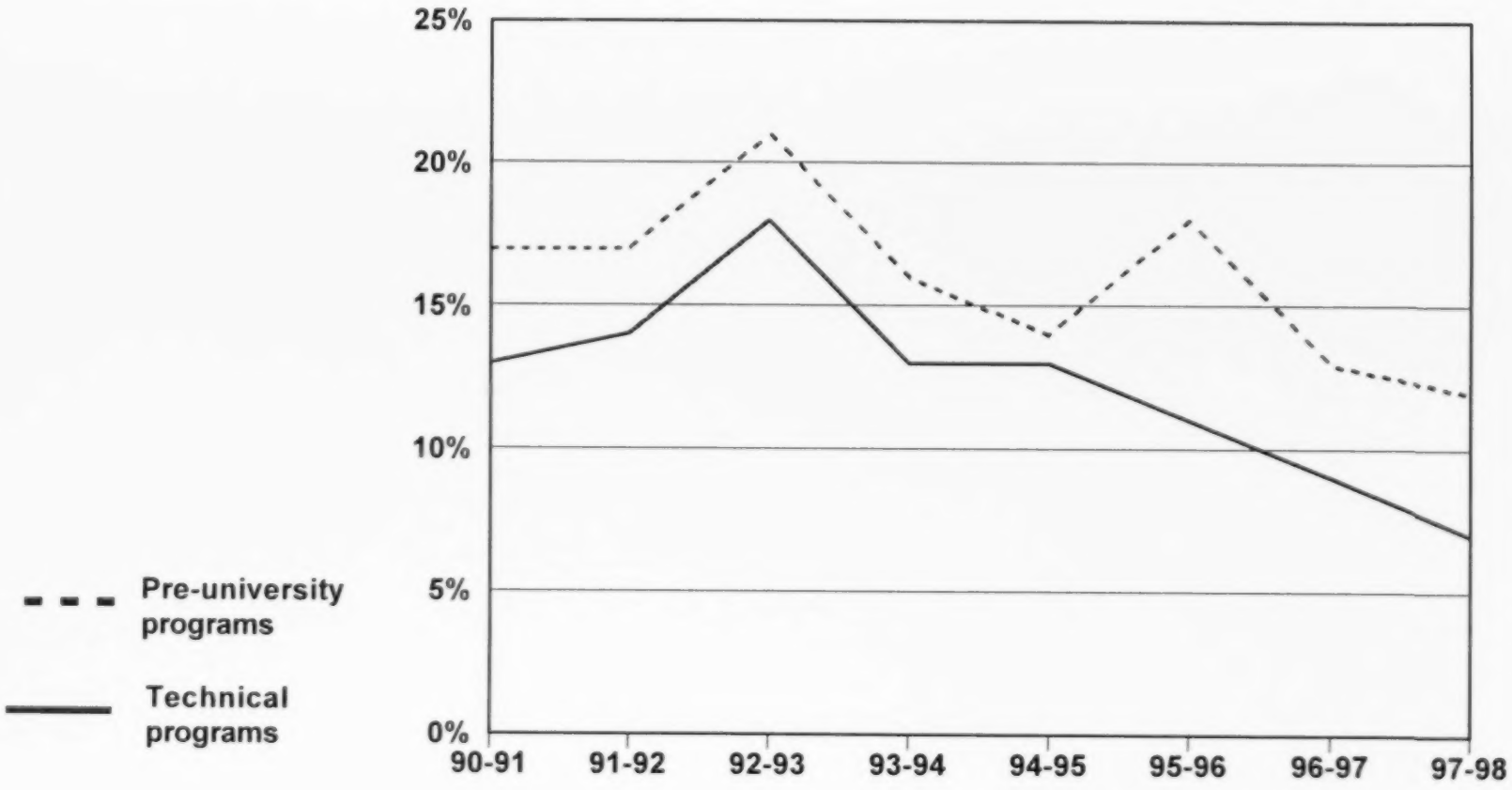
Table 6.5

Employment situation of college graduates, by graduation class, on March 31 of the year following completion of their studies (%)

	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998
Graduates of technical programs					
Employed	70.0	68.1	69.8	71.6	73.2
Looking for a job	10.2	10.4	8.7	6.7	5.3
In school	17.2	18.2	19.0	19.0	19.3
Not in the labour force	2.6	3.3	2.5	2.7	2.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Unemployment rate	12.8	13.3	11.1	8.6	6.8
Graduates of pre-university programs					
Employed	14.2	14.5	14.8	13.9	14.9
Looking for a job	2.7	2.4	3.3	2.0	2.0
In school	80.7	81.1	79.9	81.6	80.6
Not in the labour force	2.3	2.0	2.0	2.5	2.5
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Unemployment rate	16.1	14.1	18.3	12.5	11.9

Graph 6.5

Unemployment rate for college graduates: classes of 1990-1991 to 1997-1998 (%)



6.6 Integration of University Graduates Into the Labour Market

In January 1999, of the graduates of the class of 1997 who had entered the job market, 6.4% of those with a bachelor's degree and 7.4% of those with a master's degree did not have a job and were actively looking for one.

Since 1997, the chances of finding a job have increased considerably for graduates with a bachelor's degree, and have increased slightly for graduates with a master's degree.

Compared with 1997, the unemployment rate fell by 2.7 percentage points for those with a bachelor's degree and by 0.7 percentage points for those with a master's degree, bringing the difference between the unemployment rates for the two groups down to 1 percentage point in favour of those with a bachelor's degree. In 1997, the gap was 1 percentage point in favour of graduates with a master's degree.

The unemployment rate for women with a bachelor's degree (5.6%) was 2.2 percentage points lower than for men (7.8%). The situation was different for graduates with a master's degree. The unemployment rate for women with a bachelor's degree (7.8%) was 0.8 percentage points higher than for men (7.0%).

As for working conditions, in 1999, of those with full-time jobs, 81.6% of graduates with a bachelor's degree and 85.0% of those with a master's degree were employed in a job related to their main field of study. Only 0.2 percentage points separated the corresponding percentages for men and women graduates; women were at an advantage at the bachelor's level, and men were at an advantage at the master's level.

The average weekly salary was $670 for graduates with a bachelor's degree, and $948 for graduates with a master's degree. The gap was 15.1% in favour of men with a bachelor's degree, and 17.8% in favour of men with a master's degree.

Table 6.6

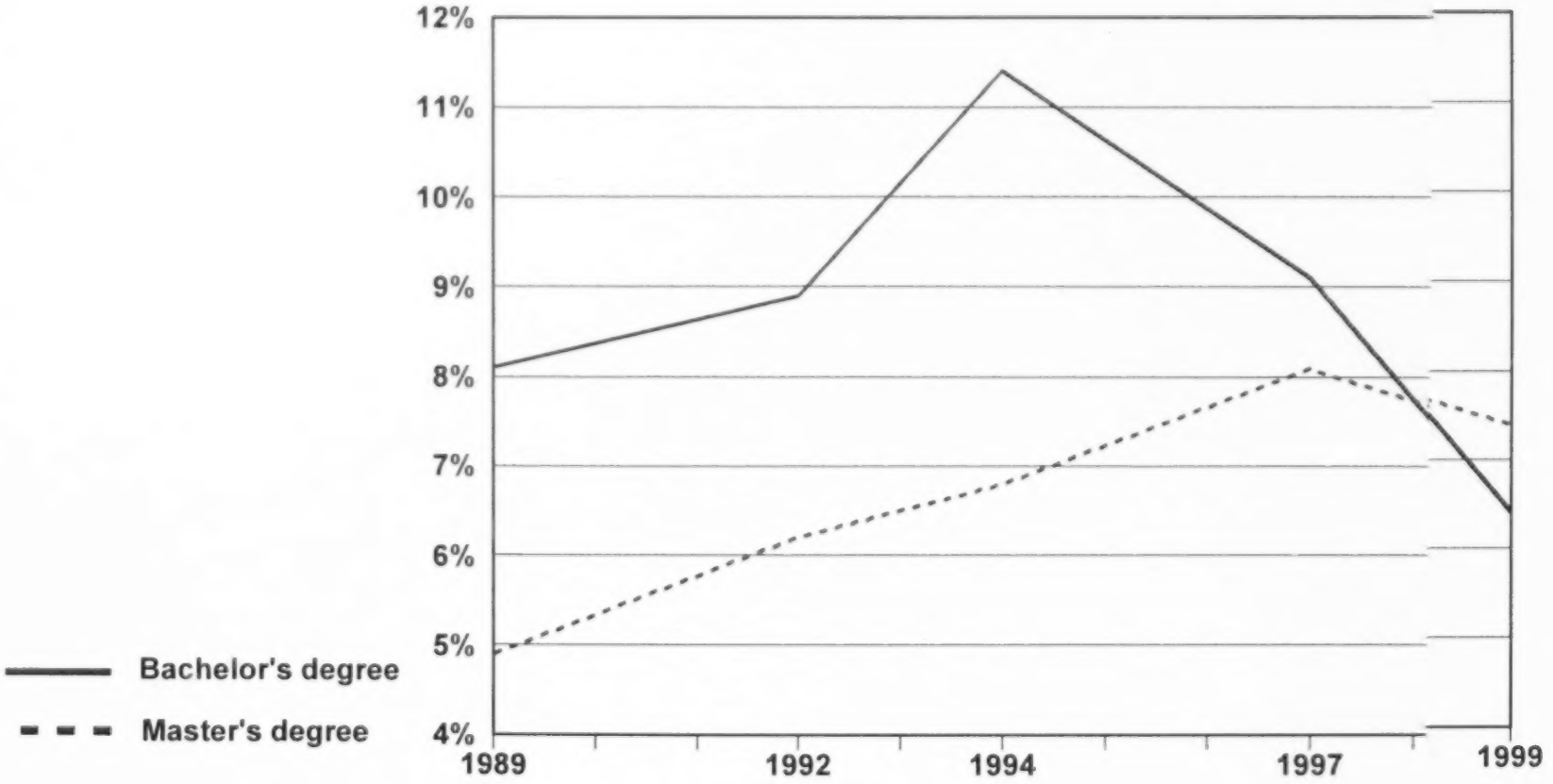
Employment situation[1] of graduates with a bachelor's or master's degree (%)

	1989	1992	1994	1997	1999
Bachelor's degree					
Employed	78.1	73.4	71.3	74.0	75.6
Looking for a job	6.9	7.2	9.2	7.4	5.1
In school	13.2	16.9	16.5	16.2	16.0
Not in the labour force	1.8	2.5	3.0	2.4	3.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Unemployment rate	8.1	8.9	11.4	9.1	6.4
Master's degree					
Employed	80.2	79.2	77.0	77.7	79.7
Looking for a job	4.1	5.2	5.6	6.8	6.4
In school	13.9	14.1	15.0	12.7	12.0
Not in the labour force	1.8	1.5	2.4	2.8	1.9
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Unemployment rate	4.9	6.2	6.8	8.1	7.4

1. The situation of graduates approximately two years after they received their degree. For example, the situation in 1999 refers to individuals who graduated in 1997.

Graph 6.6

Unemployment rate for graduates with a bachelor's or master's degree: 1989 to 1999 (%)



Statistical Appendix

Table 1
Full-time and part-time enrollment, by level of education and sector, 1989-1990 to 1998-1999

Table 2
Full-time and part-time enrollment, by category of institution, language of instruction, level of education and sector, 1998-1999

Table 3
Enrollment in secondary vocational education and college technical education, 1991-1992 to 1998-1999

Table 4
Personnel in school boards, CEGEPs and universities by job category, based on full-time equivalents, 1987-1988 to 1997-1998

Table 5
Number of diplomas awarded, by level of education and type of diploma, 1989 to 1998

Table 6
Schooling rates, by age, gender, level of education and attendance status, 1997-1998 (%)

Table 1

Full-time and part-time enrollment, by level of education and sector, 1989-1990 to 1998-1999

	1989-1990	1990-1991	1991-1992	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999
Preschool (4-year-olds)	**7 009**	**7 171**	**7 598**	**8 002**	**8 151**	**14 023**	**17 284**	**17 294**	**16 295**	**15 908**
Preschool (5-year-olds)	**88 200**	**86 341**	**85 276**	**83 530**	**85 316**	**89 912**	**95 651**	**96 087**	**95 303**	**91 153**
Elementary Education (Youth Sector)	**586 353**	**583 893**	**576 601**	**566 448**	**555 417**	**547 395**	**547 642**	**552 482**	**559 279**	**566 372**
Secondary Education (Youth Sector)	**464 122**	**473 634**	**478 571**	**495 331**	**498 306**	**498 105**	**492 629**	**486 696**	**479 740**	**469 250**
Elementary and Secondary Education (Adult Sector[1])	**238 766**	**238 486**	**248 825**	**223 651**	**222 531**	**223 886**	**226 317**	**222 434**	**218 193**	**214 303**
College[2]	**231 494**	**235 435**	**242 333**	**251 391**	**254 874**	**247 436**	**241 833**	**237 455**	**230 960**	**228 512**
Regular education	153 777	154 697	161 744	172 061	179 036	180 976	178 847	180 098	176 348	174 273
Adult education	77 717	80 738	80 589	79 330	75 838	66 460	62 986	57 357	54 612	54 239
University[3]	**244 534**	**245 433**	**249 048**	**256 426**	**253 344**	**244 531**	**237 810**	**230 941**	**226 976**	**226 638**
Undergraduate studies	207 838	207 928	209 825	214 856	210 759	201 418	194 196	187 565	183 369	183 157
Graduate studies	29 856	30 275	31 469	33 334	33 782	34 021	34 271	34 086	34 281	34 558
Postgraduate studies	6 840	7 230	7 754	8 236	8 803	9 092	9 343	9 290	9 326	8 923
Total	**1 860 478**	**1 870 393**	**1 888 252**	**1 884 779**	**1 877 939**	**1 865 288**	**1 859 166**	**1 843 389**	**1 826 746**	**1 812 496**

Sources: Déclaration des clientèles scolaires (DCS), Déclaration des clientèles en formation professionnelle (DCFP), Système d'information du Ministère sur les clientèles adultes (SIMCA), Système d'information financière sur la clientèle adulte (SIFCA), Système d'information et de gestion des données sur l'effectif College (SIGDEC), Système de recensement des clientèles universitaires (RECU)

1. Only persons having taken courses for which credits are earned for certification purposes are included.
2. Fall term. Figures for adult education exclude students enrolled in non-credit programs.
3. Fall term. These figures include resident physicians, and some students in college or Explorations programs. However, they exclude auditors, postdoctoral trainees, most students in Explorations programs and students from the Collège militaire Royal de Saint-Jean.

Table 2

Full-time and part-time enrollment, by category of institution, language of instruction, level of education and sector, 1998-1999

	Preschool	Preschool	Elementary	Secondary	Elementary and Secondary	College[2]		University[3]	Total
	4-year-olds	5-year-olds	(Youth Sector)	(Youth Sector)	(Adult Sector[1])	Regular Education	Adult Education		
School Boards	**15 672**	**87 441**	**538 394**	**395 246**	**211 771**				**1 248 524**
French	14 502	78 163	483 167	356 173	191 115				1 123 120
English	859	8 716	53 894	39 072	20 340				122 881
Native languages	311	562	1 333	1	316				2 523
Private Institutions	**66**	**3 786**	**26 155**	**72 837**	**1 989**	**15 064**	**12 241**		**132 138**
French	32	3 110	20 991	65 783	1 654	8 533	4 123		104 226
English	34	676	5 164	7 054	335	2 746	163		16 172
French and English						3 785	7 955		11 740
Public Institutions Outside the	**170**	**286**	**1 823**	**1 167**	**543**	**2 000**	**118**		**6 107**
Jurisdiction of the Ministère de l'Éducation									
French	100	170	1 510	1 098	543	1 913	118		5 452
English	24	27	114	69		87			321
Native languages	46	89	199						334
CEGEPs and Campuses						**157 209**	**41 880**		**199 089**
French						133 969	36 556		170 525
English						23 240	5 324		28 564
French and English									
Universities and Branches								**226 638**	**226 638**
French								171 819	171 819
English								54 819	54 819
Total	**15 908**	**91 513**	**566 372**	**469 250**	**214 303**	**174 273**	**54 239**	**226 638**	**1 812 496**
French	14 634	81 443	505 668	423 054	193 312	144 415	40 797	171 819	1 575 142
English	917	9 419	59 172	46 195	20 675	26 073	5 487	54 819	222 757
Native languages	357	651	1 532	1	316				2 857
French and English						3 785	7 955		11 740

Sources: Déclaration des clientèles scolaires (DCS), Déclaration des clientèles en formation professionnelle (DCFP), Système d'information du Ministère sur les clientèles adultes (SIMCA), Système d'information financière sur la clientèle adulte (SIFCA), Système d'information et de gestion des données sur l'effectif collégial (SIGDEC), Système de recensement des clientèles universitaires (RECU)

1. Only persons having taken courses for which credits are earned for certification purposes are included.
2. Fall term. Figures for adult education exclude students enrolled in non-credit programs.
3. Fall term. These figures include resident physicians, but exclude auditors, postdoctoral trainees and students in Explorations programs.

Table 3

Enrollment in secondary vocational education and college technical education, 1991-1992 to 1998-1999

	1991-1992	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999p
SECONDARY EDUCATION[1]	**91 483**	**84 726**	**85 026**	**86 018**	**86 900**	**88 690**	**93 274**	**93 813**
Under 20 years of age[2]	20 613	18 840	18 840	19 655	22 376	25 751	26 923	26 367
20 years of age or over[3]	70 870	66 546	66 546	66 363	64 524	62 939	66 351	67 446
REGULAR PATHS DVS (SSVD), SSVC, AVS, AVE	**57 476**	**58 023**	**58 023**	**59 771**	**66 950**	**72 990**	**75 786**	**76 189**
Under 20 years of age[2]	17 855	17 066	16 871	18 015	20 921	24 530	25 818	25 108
20 years of age or over[3]	39 621	41 347	41 152	41 756	46 029	48 460	49 968	51 681
OTHER PROGRAMS	**34 007**	**26 313**	**27 003**	**26 247**	**19 950**	**15 700**	**17 488**	**17 024**
Under 20 years of age[2]	2 758	2 207	1 609	1 640	1 455	1 221	1 105	1 259
20 years of age or over[3]	31 249	24 106	25 394	24 607	18 495	14 479	16 383	15 765
COLLEGE	**103 040**	**113 980**	**116 637**	**115 740**	**120 792**	**122 315**	**123 602**	**125 752**
Diplôme d'études collégiales (DEC-technical)	78 905	81 763	84 916	87 388	89 319	90 595	90 776	90 309
Certificat d'études collégiales (CEC)	7 738	11 412	10 576	8 517	7 338	1 209	280	60
Attestation d'études collégiales (AEC)	16 235	20 625	20 932	19 757	24 041	30 509	32 538	35 383
Diplôme de perfectionnement de l'enseignement collégial (DPEC)	162	180	213	78	94	2	8	-

Sources: Déclaration des clientèles en formation professionnelle (DCFP), Déclaration des clientèles scolaires (DCS), Système d'information financière sur la clientèle adulte (SIFCA), Système d'information du Ministère sur les clientèles adultes (SIMCA), Système d'information et de gestion des données sur l'effectif collégial (SIGDEC)

p Preliminary figures

DVS: Diploma of Vocational Studies (or SSVD: Secondary School Vocational Diploma); SSVC: Secondary School Vocational Certificate; AVS: Attestation of Vocational Specialization; AVE: Attestation of Vocational Education

1. Only persons having taken courses for which credits are earned for certification purposes are included. Persons enrolled in more than one program in the same year are counted only once.
2. Includes students 20 years of age or over in the youth sector.
3. For the adult sector only.

Table 4

Personnel in school boards, CEGEPs and universities by job category, based on full-time equivalents,[1] 1987-1988 to 1997-1998

	1987-1988	1988-1989	1989-1990	1990-1991	1991-1992	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998
School Boards	**N/A**	**N/A**	**102 403**	**105 821**	**107 379**	**108 418**	**107 487**	**106 934**	**105 919**	**104 379**	**104 255**
Youth and Adult Sectors											
Teaching staff	N/A	N/A	68 730	70 867	71 958	72 079	71 170	70 518	70 331	69 680	70 271
Administrative staff	N/A	N/A	1 603	1 607	1 552	1 514	1 479	1 452	1 388	1 274	1 146
School principals	N/A	N/A	3 831	3 874	3 878	3 878	3 804	3 820	3 753	3 647	3 528
Managerial staff	N/A	N/A	796	822	842	874	859	848	802	750	668
Non-teaching professionals	N/A	N/A	4 320	4 486	4 563	4 767	4 803	4 691	4 530	4 250	3 883
Support staff	N/A	N/A	23 123	24 165	24 586	25 306	25 372	25 605	25 115	24 778	24 759
CEGEPs	**18 227**	**18 550**	**18 434**	**19 296**	**19 799**	**20 820**	**21 304**	**21 771**	**21 245**	**20 472**	**19 570**
Regular Education and Adult Education											
Teaching staff	11 151	11 176	11 085	11 669	12 264	12 863	13 405	13 919	13 652	13 224	12 699
Administrative staff	608	637	648	662	646	657	667	670	664	612	583
Managerial staff	294	303	304	313	315	323	335	327	307	287	245
Non-teaching professionals	930	1 019	1 015	1 056	1 048	1 095	1 127	1 146	1 085	1 047	964
Support staff	5 244	5 415	5 382	5 596	5 526	5 882	5 770	5 709	5 537	5 302	5 079
Universities[2]	**29 503**	**29 947**	**30 656**	**31 905**	**32 679**	**33 535**	**33 404**	**33 054**	**32 224**	**31 615**	**N/A**
Teaching and research staff	9 426	9 654	9 969	10 336	10 838	11 111	11 260	11 038	10 826	10 553	N/A
Teaching and research assistants	3 175	3 108	3 301	3 720	3 959	4 046	4 083	4 304	4 299	4 652	N/A
Executive personnel	1 265	1 284	1 305	1 308	1 343	1 347	1 348	1 305	1 291	1 218	N/A
Managerial staff	540	569	597	601	734	615	603	647	491	498	N/A
Non-teaching professionals	2 899	3 039	3 148	3 266	3 231	3 607	3 557	3 496	3 487	3 352	N/A
Support staff	12 198	12 293	12 336	12 674	12 574	12 809	12 553	12 264	11 830	11 342	N/A

Sources: Personnel des commissions scolaires (PERCOS II), Système d'information sur le personnel des organismes collégiaux (SPOC-RFA), Système d'information financière des universités (SIFU)

N/A: Data not available

1. All personnel activities carried out during the school year are included in the calculation of full-time equivalents for each job category.
2. Funds with or without restrictions. Excludes courses given by lecturers, those given in addition to regular course loads by regular professors and those given by individuals receiving honoraria or on contract. Figures from 1996-1997 are preliminary.

Table 5

Number of diplomas awarded, by level of education and type of diploma, 1989 to 1998

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Secondary[1]	**77 784**	**80 904**	**88 473**	**101 503**	**110 431**	**103 211**	**104 522**	**111 762**	**109 200**	**107 059**
General education	61 521	64 902	69 928	78 893	79 418	81 176	81 792	86 451	80 290	77 315
Vocational education	16 263	16 002	18 545	22 610	31 013	22 035	22 730	25 311	28 910	29 744
College	**40 843**	**41 303**	**41 769**	**43 294**	**44 686**	**44 683**	**43 153**	**40 764**	**42 092**	**39 938**
DEC (pre-university education)	24 851	24 992	25 244	25 414	24 971	25 833	25 520	24 295	25 630	24 331
DEC (technical education)	13 495	13 632	13 196	13 516	14 760	14 991	15 598	16 054	16 386	15 593
DEC without mention	881	832	1 053	1 228	1 541	741	322	145	6	..
AEC, CEC and DPEC[2]	1 616	1 847	2 276	3 136	3 414	3 118	1 713	270	70	14
University[3]	**46 756**	**48 728**	**51 329**	**53 822**	**55 277**	**56 817**	**56 015**	**55 184**	**53 277**	**50 781**
Bachelor's degree	24 850	25 526	26 911	27 683	28 404	28 967	28 932	29 602	28 894	27 478
Master's degree	4 905	5 166	5 404	5 823	6 082	6 604	6 414	6 547	6 514	6 727
Doctorate	696	712	810	915	891	959	1 037	1 087	1 143	1 231
Certificates and diplomas	16 305	17 324	18 204	19 401	19 900	20 287	19 632	17 948	16 726	15 345

Sources: Système de sanction des études appliquée au ministère de l'Éducation (SESAME), Sanction des adultes en formation générale (SAGE), Système de la sanction des études au collégial (SSEC), Système de recensement des clientèles universitaires (RECU)

DEC: diplôme d'études collégiales; AEC: attestation d'études collégiales; CEC: certificat d'études collégiales; DPEC: diplôme de perfectionnement de l'enseignement collégial

1. From 1987-1988 to 1996-1997. Following the vocational education reform, approximately 8 800 students with an SSVC (Secondary School Vocational Certificate) also received an SSVD (Secondary School Vocational Diploma) in 1993.
2. Since 1994, there have been no new enrollments in programs leading to these types of certification.
3. These figures exclude diplomas awarded by the Collège militaire Royal de Saint-Jean.

Table 6

Schooling rates,[1] by age, gender, level of education and attendance status, 1997-1998 (%)

	Preschool and Elementary Education	Secondary		College		University		Total		
		Full time	Part time	Full time	Part time	Full time	Part time	Full time	Part time	All attendance statuses
4-year-olds										
Male	18.3	0.0	0.0	0.0	0.0	0.0	0.0	18.3	0.0	18.3
Female	18.7	0.0	0.0	0.0	0.0	0.0	0.0	18.7	0.0	18.7
Total	18.5	0.0	0.0	0.0	0.0	0.0	0.0	18.5	0.0	18.5
5-year-olds										
Male	97.8	0.0	0.0	0.0	0.0	0.0	0.0	97.8	0.0	97.8
Female	97.8	0.0	0.0	0.0	0.0	0.0	0.0	97.8	0.0	97.8
Total	97.8	0.0	0.0	0.0	0.0	0.0	0.0	97.8	0.0	97.8
15-year-olds										
Male	0.0	95.7	0.3	0.0	0.0	0.0	0.0	95.7	0.3	96.0
Female	0.0	97.1	0.2	0.1	0.0	0.0	0.0	97.2	0.3	97.5
Total	0.0	96.4	0.3	0.1	0.0	0.0	0.0	96.4	0.3	96.7
16-year-olds										
Male	0.8	90.5	2.1	1.3	0.1	0.0	0.0	92.6	2.2	94.8
Female	0.3	92.2	1.7	1.8	0.0	0.0	0.0	94.3	1.8	96.1
Total	0.6	91.3	1.9	1.5	0.1	0.0	0.0	93.4	2.0	95.4
17-year-olds										
Male	1.2	40.1	10.4	35.7	0.1	0.3	0.0	77.3	10.5	87.8
Female	0.6	31.0	9.3	49.9	0.1	0.4	0.0	81.8	9.4	91.2
Total	0.9	35.7	9.8	42.6	0.1	0.3	0.0	79.5	10.0	89.4
18-year-olds										
Male	1.2	24.5	10.1	38.4	0.7	1.8	0.1	66.0	10.9	76.9
Female	0.6	18.0	7.7	54.2	0.5	2.7	0.1	75.4	8.3	83.7
Total	0.9	21.3	8.9	46.1	0.6	2.3	0.1	70.6	9.6	80.2
19-year-olds										
Male	1	16	9	28	2	10	0	54	11	65
Female	1	12	6	36	2	17	0	65	9	74
Total	1	14	8	32	2	13	0	60	10	69

1. Schooling rates are calculated by dividing the school population of a given age on September 30, 1997, by the population of the same age on the same date. The rates for 4- and 5-year-olds differ from the results presented in Section 2.3 referring to this matter (see the notes in the section).

Table 6 (cont.)

	Preschool and Elementary Education	Secondary		College		University		Total		
		Full time	Part time	Full time	Part time	Full time	Part time	Full time	Part time	All attendance statuses
20-to-24-year olds										
Male	0.7	7.1	5.2	8.9	1.7	13.9	2.9	30.6	9.7	40.3
Female	0.4	5.3	3.7	9.6	2.1	19.0	4.4	34.3	10.1	44.5
Total	0.5	6.2	4.4	9.2	1.9	16.4	3.6	32.4	9.9	42.3
25-to-29-year-olds										
Male	0.5	2.7	2.6	1.7	0.7	4.0	3.4	8.9	6.8	15.6
Female	0.4	2.5	2.0	1.8	1.4	3.8	5.0	8.5	8.4	16.9
Total	0.5	2.6	2.3	1.7	1.0	3.9	4.2	8.7	7.6	16.3
30-to-39-year-olds										
Male	0.4	1.4	1.7	0.6	0.5	1.0	2.0	3.4	4.2	7.6
Female	0.4	1.7	1.5	0.8	1.3	0.9	3.0	3.9	5.7	9.6
Total	0.4	1.6	1.6	0.7	0.9	0.9	2.5	3.6	5.0	8.6
40-to-49-year-olds										
Male	0.2	0.8	1.1	0.3	0.4	0.3	1.3	1.5	2.7	4.3
Female	0.3	0.9	1.0	0.4	1.1	0.4	2.3	2.0	4.4	6.4
Total	0.2	0.8	1.0	0.4	0.8	0.3	1.8	1.8	3.6	5.3
50-to-59-year-olds										
Male	0.1	0.2	0.5	0.1	0.2	0.1	0.4	0.6	1.2	1.7
Female	0.2	0.3	0.4	0.1	0.4	0.1	0.8	0.7	1.6	2.3
Total	0.2	0.2	0.5	0.1	0.3	0.1	0.6	0.6	1.4	2.0
60 years of age or over										
Male	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.4
Female	0.2	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.2	0.5
Total	0.2	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.2	0.4